

EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L2	120	544/74.ccls.	USPAT	OR	OFF	2007/08/15 15:28

PALM INTRANET

Day : Wednesday

Date: 8/15/2007

Time: 15:22:14

Inventor Information for 10/532223

Inventor Name	City	State/Country
CLADINGBOEL, DAVID	LEICESTERSHIRE	UNITED KINGDOM

Appln Info	Contents	Petition Info	Atty/Agent Info	Continuity/Reexam	Foreign C
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Search Another: Application #

Search

or Patent#

Search

PCT /

Search

or PG PUBS #

Search

Attorney Docket #

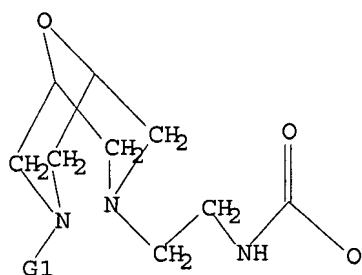
Search

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G1 H, CH2

Structure attributes must be viewed using STN Express query preparation.

=> s l1

SAMPLE SEARCH INITIATED 13:56:55 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 15 TO ITERATE

100.0% PROCESSED 15 ITERATIONS
SEARCH TIME: 00.00.01

6 ANSWERS

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**

PROJECTED ITERATIONS: 68 TO 532

PROJECTED ANSWERS: 6 TO 266

L2 6 SEA SSS SAM L1

=> s l1 sss full

FULL SEARCH INITIATED 13:57:01 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 298 TO ITERATE

100.0% PROCESSED 298 ITERATIONS
SEARCH TIME: 00.00.01

68 ANSWERS

L3 68 SEA SSS FUL L1

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
172.10	172.31

FULL ESTIMATED COST

FILE 'CAPLUS' ENTERED AT 13:57:05 ON 15 AUG 2007

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FILE COVERS 1907 - 15 Aug 2007 VOL 147 ISS 8
FILE LAST UPDATED: 14 Aug 2007 (20070814/ED)

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<http://www.cas.org/infopolicy.html>

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L4 18 L3

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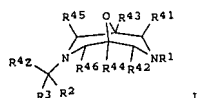
L4 ANSWER 1 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
 ACCESSION NUMBER: 2007:672662 CAPLUS
 DOCUMENT NUMBER: 147:95709
 TITLE: Preparation of oxabispidines for the treatment of cardiac arrhythmias
 INVENTOR(S): Bjoere, Annika; Cladingboel, David; Kajanus, Johan; Olsson, Christina; Ponten, Fritiof; Strandlund, Gert
 PATENT ASSIGNEE(S): AstraZeneca AB, Swed.
 SOURCE: PCT Int. Appl., 188pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007069986	A1	20070621	WO 2006-SE1426	20061214

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
 RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, ML, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: SE 2005-2774 A 20051215

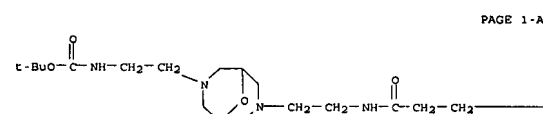
OTHER SOURCE(S): MARPAT 147:95709
 GI



AB Title compds. [1; R1 = (substituted) alkyl, COER7, CONR8aR5d, SO2R9a; R2, R3 = H, F, alkyl; R4 = alkyl, 6-membered (hetero)aryl, etc.; R5d = H, (substituted) alkyl, aryl, (substituted) heterocyclyl, etc.; R8a = H, (substituted) alkyl, alkoxy, etc.; R9a = (substituted) alkyl; R41-R46 = H, alkyl; Z = NR14aCOA, CONR14bb; R14a, R14b = H, alkyl; A = bond, (substituted) alkylene; B = (substituted) alkylene; E = O, S, with specific exclusions, were prepared Thus, N-(4-cyanobenzyl)-2-(9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl)acetamide dihydrochloride (preparation given),

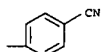
L4 ANSWER 1 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
 PAGE 1-B

— CN
 RN 942281-95-0 CAPLUS
 CN INDEX NAME NOT YET ASSIGNED



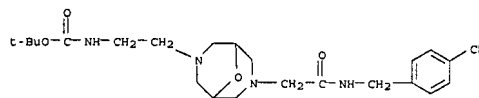
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PAGE 1-B

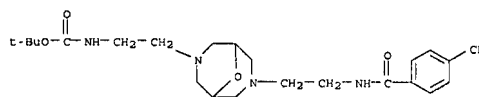


REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE
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L4 ANSWER 1 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
 PHCH2CH2Br, and K2CO3 were heated together in MeCN at 60° for 66 h to give 76.2% N-(4-cyanobenzyl)-2-[7-(2-phenylethyl)-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]acetamide. The latter showed a D10 value of 7.1 for class III electrophysiol. potency in guinea pigs.
 IT 942280-90-2P 942281-68-7P 942281-92-7P
 942281-95-0P
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (claimed compound; preparation of oxabispidines for the treatment of cardiac arrhythmias)
 RN 942280-90-2 CAPLUS
 CN INDEX NAME NOT YET ASSIGNED

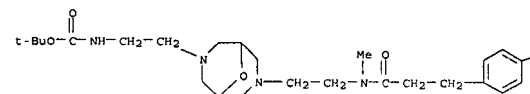


RN 942281-68-7 CAPLUS
 CN INDEX NAME NOT YET ASSIGNED



RN 942281-92-7 CAPLUS
 CN INDEX NAME NOT YET ASSIGNED

PAGE 1-A



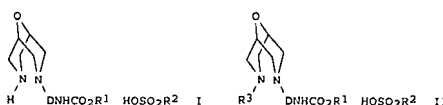
L4 ANSWER 2 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2006:1357092 CAPLUS
 DOCUMENT NUMBER: 146:100735
 TITLE: Process for the preparation of oxabispidine sulfonate salts via hydrogenolysis of N-protected oxabispidines.
 INVENTOR(S): Cladingboel, David; Ensor, Gareth
 PATENT ASSIGNEE(S): AstraZeneca AB, Swed.
 SOURCE: PCT Int. Appl., 90pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006137770	A1	20061228	WO 2006-SE590	20060612

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
 RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: SE 2005-1427 A 20050620
 SE 2005-2771 A 20051215

OTHER SOURCE(S): CASREACT 146:100735; MARPAT 146:100735
 GI



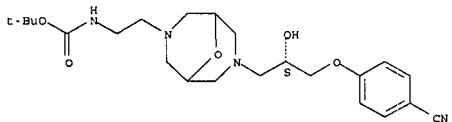
AB Title compds. [1; R1 = (substituted) alkyl; D = alkylene; R2 = alkyl, perfluoroalkyl, (substituted) Ph, were prepared by hydrogenolysis of (1; R1, R2 as above; R3 = protecting group labile to hydrogenation) in the presence of a solvent comprising H2O, a C3-5 secondary alc., and 515% of another organic solvent. Thus, [2-(7-benzyl-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl)ethyl]carbamic acid tert-Bu ester 2,4,6-trimethylbenzenesulfonic acid salt was hydrogenolyzed in isopropanol/H2O over Pd/C at 2.5 bar H2 and 55° for 1 h. The solution was filtered and the filtrate was combined with aqueous Na2CO3 and then

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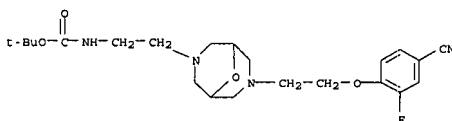
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L4 ANSWER 2 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
 treated with 4-[(2S)-oxiranylmethoxy]benzonitrile in isopropanol/PhMe
 followed by heating at 73° for 4 h and stirring at room temp.
 overnight to give 784 tert-Bu 2-[7-[(2S)-3-(4-cyanophenoxy)-2-
 hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethylcarbamate.
 IT 335619-18-6P 872045-91-5P
 RL: IMP (Industrial manufacture); SPN (Synthetic preparation); PREP
 (Preparation)
 (preparation of oxabispidine sulfonate salts via hydrogenolysis of
 N-protected oxabispidines)
 RN 335619-18-6 CAPLUS
 CN Carbamic acid,
 N-[2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-
 diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX
 NAME)

Absolute stereochemistry.



RN 872045-91-5 CAPLUS
 CN Carbamic acid, N-[2-[7-[(2S)-3-(4-cyano-2-fluorophenoxy)ethyl]-9-oxa-3,7-
 diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX
 NAME)

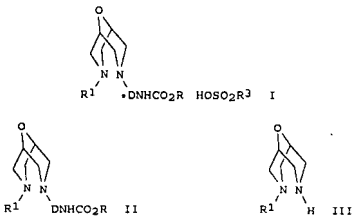


IT 473584-06-4
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of oxabispidine sulfonate salts via hydrogenolysis of
 N-protected oxabispidines)
 RN 473584-06-4 CAPLUS
 CN Benzenesulfonic acid, 2,4,6-trimethyl-, compd. with 1,1-dimethylethyl
 N-[2-[7-(phenylmethyl)-9-oxa-3,7-diazabicyclo[3.3.1]non-3-
 yl]ethyl]carbamate (1:1) (CA INDEX NAME)
 CM 1

L4 ANSWER 3 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2006:135658 CAPLUS
 DOCUMENT NUMBER: 146:100733
 TITLE: Process for the preparation of sulfonic acid salts of
 oxabispidines via sulfonation in an aqueous medium.
 INVENTOR(S): Cheema, Lal; Cladingboel, David
 PATENT ASSIGNEE(S): AstraZeneca AB, Sweden
 SOURCE: PCT Int. Appl., 63pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006137771	A1	20061228	WO 2006-SE691	20060612
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
PRIORITY APPLN. INFO.:		SE 2005-1426	A 20050620	
		SE 2005-2773	A 20051215	

OTHER SOURCE(S): CASREACT 146:100733; MARPAT 146:100733
 GI

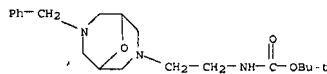


AB Title compds. [I; R1 = H, protecting group, R6BCR4R5A; R4 = H, halo,
 alkyl, OR7, ENR8R9; R4R5 = O; R5 = H, alkyl; R6 = (substituted) Ph,

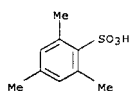
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L4 ANSWER 2 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

CRN 473584-04-2
 CMF C20 H31 N3 O3



CM 2
 CRN 3453-83-6
 CMF C9 H12 O3 S

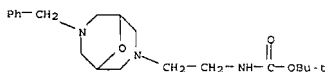


REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE
 FORMAT

L4 ANSWER 3 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
 pyridyl; R7 = H, alkyl, aryl(alkyl), heteroaryl(alkyl), etc.; R8 = H,
 alkyl, aryl(alkyl), heteroaryl(alkyl), etc.; R9 = H, alkyl, aryl(alkyl),
 etc.; A = bond, (aminosulfonyl-interrupted) alkylene, alkyleneamino,
 alkyleneaminosulfonyl, alkyleneaminosulfonyl; alkyleneoxy; B =
 Z[(C(O))aCH(R13a)]b, Z[(C(O))cNR13b], etc.; Z = bond, (aminosulfonyl-
 interrupted) alkylene, a, b, c = 0, 1; R13a = H; R13b = H, alkyl; R13aR6,
 R13bR6 = alkylene, R2 = (substituted) alkyl; R3 = alkyl, perfluoroalkyl,
 (substituted) Ph, were prep. by treatment of an aq. dispersion of I
 and
 III; (variables as above) with a source of R3SO3- (followed if necessary
 by adjustment of the pH to 3-8) and product isolation. Thus,
 3-benzyl-9-oxa-3,7-diazabicyclo[3.3.1]nonane dihydrochloride,
 2-(tert-butoxycarbonylamino)ethyl 2,4,6-trimethylbenzenesulfonate, and
 aq.
 NaOH were stirred 12 h in PhMe at 65°, stirred at room temp. for 8
 h, left to stand for 24 h, heated to 65°, and the layers were sepd.
 The org. layer was stirred with aq. citric acid at 60° for 5 min.
 and the aq. layer was sepd. and combined with the H2O and
 isopropanol-dild. first aq. phase at >70° followed by stirring for
 1 h at 75°, cooling to 41° over 4 h and stirring for 65 h to
 give 90%
 [2-(7-benzyl-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl)ethyl]carbamate
 acid tert-Bu ester 2,4,6-trimethylbenzenesulfonic acid salt monohydrate.
 IT 473584-06-4P 917898-18-1P
 RL: IMP (Industrial manufacture); SPN (Synthetic preparation); PREP
 (Preparation)
 (preparation of sulfonic acid salts of oxabispidines via sulfonation
 in an aqueous medium)

RN 473584-06-4 CAPLUS
 CN Benzenesulfonic acid, 2,4,6-trimethyl-, compd. with 1,1-dimethylethyl
 N-[2-[7-(phenylmethyl)-9-oxa-3,7-diazabicyclo[3.3.1]non-3-
 yl]ethyl]carbamate (1:1) (CA INDEX NAME)

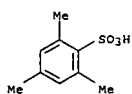
CM 1
 CRN 473584-04-2
 CMF C20 H31 N3 O3



CM 2
 CRN 3453-83-6
 CMF C9 H12 O3 S

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L4 ANSWER 3 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

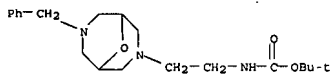


RN 917898-18-1 CAPLUS
 CN Benzenesulfonic acid, 2,4,6-trimethyl-, compd. with 1,1-dimethylethyl N-[2-[7-(phenylmethyl)-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate, hydrate (1:1:1) (CA INDEX NAME)

CM 1

CRN 473584-04-2

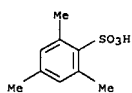
CMP C20 H31 N3 O3



CM 2

CRN 3453-83-6

CMP C9 H12 O3 S



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L4 ANSWER 4 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
 with proviso, having a surface area of <0.7 m²/g, was prepd. Thus, tert-Bu 2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethylcarbamate (II) (prepn. given) was recrystd. from diisopropyl ether/isopropanol (10:2 vol./vol.) to give 91% cryst. II having a mean surface area of 0.1659 m²/g.

IT RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

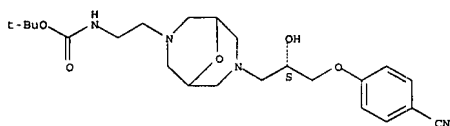
(preparation of crystalline N,N'-disubstituted oxabispindines and their use as cardiovascular agents)

RN 335619-18-6 CAPLUS

CN Carbamic acid,

N-[2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

Absolute stereochemistry.

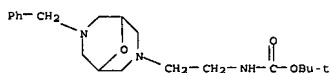


IT 473584-04-2

RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of crystalline N,N'-disubstituted oxabispindines and their use as cardiovascular agents)

RN 473584-04-2 CAPLUS

CN Carbamic acid, N-[2-[7-(phenylmethyl)-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)



REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L4 ANSWER 4 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:1354313 CAPLUS

DOCUMENT NUMBER: 146:100732

TITLE: Preparation of crystalline N,N'-disubstituted oxabispindines and their use as cardiovascular agents.

INVENTOR(S): Juppoo, Anne; Steele, Gerald

PATENT ASSIGNEE(S): AstraZeneca AB, Swed.

SOURCE: PCT Int. Appl., 60pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

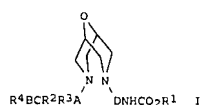
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006137772	A1	20061228	WO 2006-SE692	20060612
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW			
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PRIORITY APPLN. INFO.: SE 2005-1428

A 20050620

OTHER SOURCE(S): MARPAT 146:100732

G1



AB Crystalline material consisting essentially of title compds. [1; D =

alkylene;

R1 = (substituted) alkyl; R2 = H, halo, alkyl, ORS, ENR6R6; R3 = H,

alkyl;

R2R3 = O; R4 = (substituted) Ph, pyridyl; R5 = H, alkyl, aryl(alkyl), heteroaryl(alkyl), etc.; R6 = H, alkyl, aryl(alkyl), heteroaryl(alkyl), C(=NH)NH2, etc.; R7 = H, alkyl, aryl(alkyl), etc.; A = bond, J, JNR10a, JO, JSO2NR10b, etc.; B = Z[(C(O))aCH(R11a)]b, Z[(C(O))cHR11b, ZO, etc.; J

(substituted) (interrupted) alkylene; a, b, c = 0, 1; R10a, R10b = H, alkyl; R11a = H; R11b = H, alkyl; R4R11a, R4R11b = (interrupted) alkylene;

L4 ANSWER 5 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:1338378 CAPLUS

DOCUMENT NUMBER: 146:81900

TITLE: New oxabispindine compounds for the treatment of cardiac arrhythmias

INVENTOR(S): Bjoerre, Annika; Cladingboel, David; Ensor, Gareth;

Herring, Adam; Kajanus, Johan; Lundqvist, Robert;

Oleson, Christina; Sigfridsson, Carl-Gustav;

Strandlund, Gert

PATENT ASSIGNEE(S): AstraZeneca AB, Swed.

SOURCE: PCT Int. Appl., 164pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006133116	A1	20061221	WO 2006-SE688	20060612
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GO, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			

WO 2005123748 A1 20051229 WO 2005-SE891 20050613

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,

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LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA,

NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK,

SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU,

ZA, ZM, ZW

RW: BH, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZW, AM, AZ,

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EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,

RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GO, GW, ML,

MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: WO 2005-SE891

A 20050613

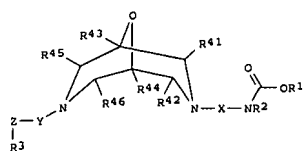
SE 2005-2775 A 20051215

SE 2004-1539 A 20040615

OTHER SOURCE(S): MARPAT 146:81900

G1

L4 ANSWER 5 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



AB There is provided compds. of formula I, wherein R1 = (un)substituted C1-6 alkyl; R2 = H or (un)substituted C1-4 alkyl; X = (un)substituted C2-4 n-alkylene; Y = (un)substituted C1-6 n-alkylene; Z = a bond, O, C(O), etc.; R3 = (un)substituted Ph or heterocycle; R41 to R46 = H or C1-3 alkyl, which compds. are useful in the prophylaxis and in the treatment

of arrhythmias, in particular atrial and ventricular arrhythmias. A process for preparing I is claimed. For example, II was prepared by reacting 3,5-Difluoro-4-[2-(9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl)ethoxy]benzonitrile hydrochloride with tert-Bu (3-bromopropyl)carbamate. I were tested in a Rb⁺-efflux assay for detection of HERG channel blockers and were found to exhibit pIC50 values >4.5.

IT 872045-91-5P, tert-Butyl [2-[7-[2-(4-cyano-2-fluorophenoxy)ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate 917226-84-7P 917226-88-1P 917226-89-2P, tert-Butyl [2-[7-[2-(4-cyano-2-fluorophenoxy)ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate maleate 917226-97-2P, tert-Butyl [2-[7-[2-(4-cyano-2,6-difluorophenoxy)ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate 917226-98-3P, tert-Butyl [2-[7-[3-(4-cyano-2,6-difluorophenoxy)propyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate 917227-00-0P, tert-Butyl [2-[7-[(2S)-3-(4-cyano-2,6-difluorophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate 917227-01-1P, tert-Butyl [2-[7-[(2S)-3-(4-cyano-2-fluorophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate 917227-02-2P, tert-Butyl [2-[7-[2-[(4-cyanobenzyl)oxy]ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate 917227-03-3P, tert-Butyl [2-[7-[2-(4-cyanophenyl)ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate 917227-04-4P, tert-Butyl [2-[7-[(2S)-3-(4-cyanophenoxy)-2-methoxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate 917227-06-6P, tert-Butyl [2-[7-[3-[(4-cyanophenyl)sulfonyl]propyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate 917227-07-7P, tert-Butyl [2-[7-[2-(4-cyanophenyl)ethoxy]ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate 917227-09-9P.

L4 ANSWER 5 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

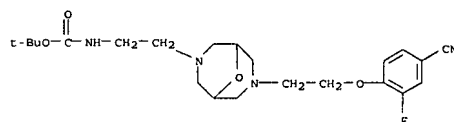
tert-Butyl [2-[7-[3-(4-fluorophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate 917227-10-2P, tert-Butyl [2-[7-[3-(4-chlorophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate 917227-11-3P, tert-Butyl [2-[7-[2-[2-(4-cyanophenoxy)ethoxy]ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate 917227-12-4P, tert-Butyl [2-[7-[2-(4-bromo-2-fluorophenoxy)ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate 917227-13-5P, tert-Butyl [2-[7-[3-(2,4-dicyanophenoxy)propyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; new oxabispidine compds. for treatment of cardiac arrhythmias)

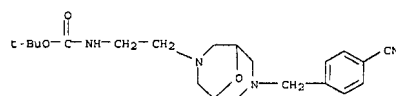
RN 872045-91-5 CAPLUS

CN Carbamic acid, N-[2-[7-[2-(4-cyano-2-fluorophenoxy)ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)



RN 872046-15-6 CAPLUS

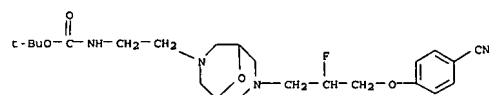
CN Carbamic acid, N-[2-[7-[(4-cyanophenyl)methyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)



RN 917226-84-7 CAPLUS

CN Carbamic acid, N-[2-[7-[3-(4-cyano-2,6-difluorophenoxy)propyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

L4 ANSWER 5 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



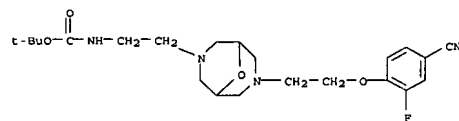
RN 917226-88-1 CAPLUS

CN Carbamic acid, N-[2-[7-[2-(4-cyano-2-fluorophenoxy)ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester, (2E)-2-butenedioate (1:1) (CA INDEX NAME)

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CRN 872045-91-5

CMF C22 H31 F N4 O4

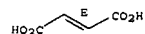


CM 2

CRN 110-17-8

CMF C4 H4 O4

Double bond geometry as shown.



RN 917226-89-2 CAPLUS

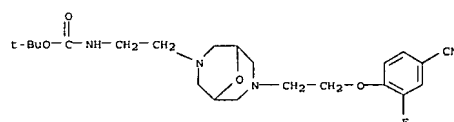
CN Carbamic acid, N-[2-[7-[2-(4-cyano-2-fluorophenoxy)ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester, (2Z)-2-butenedioate (1:1) (CA INDEX NAME)

CM 1

CRN 872045-91-5

CMF C22 H31 F N4 O4

L4 ANSWER 5 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

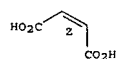


CM 2

CRN 110-16-7

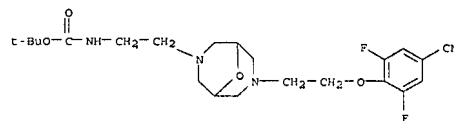
CMF C4 H4 O4

Double bond geometry as shown.



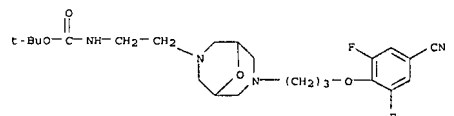
RN 917226-97-2 CAPLUS

CN Carbamic acid, N-[2-[7-[2-(4-cyano-2,6-difluorophenoxy)ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)



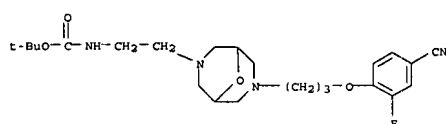
RN 917226-98-3 CAPLUS

CN Carbamic acid, N-[2-[7-[3-(4-cyano-2,6-difluorophenoxy)propyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)



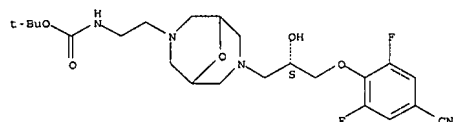
L4 ANSWER 5 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 917226-99-4 CAPLUS
 CN Carbamic acid, N-[2-[7-[3-(4-cyano-2-fluorophenoxy)propyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)



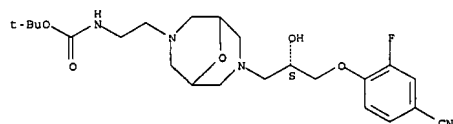
RN 917227-00-0 CAPLUS
 CN Carbamic acid, N-[2-[7-[(2S)-3-(4-cyano-2,6-difluorophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

Absolute stereochemistry.



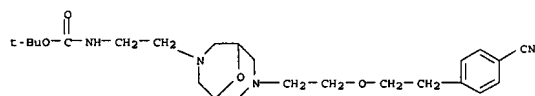
RN 917227-01-1 CAPLUS
 CN Carbamic acid, N-[2-[7-[(2S)-3-(4-cyano-2-fluorophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

Absolute stereochemistry.

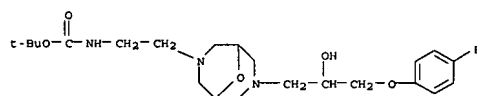


L4 ANSWER 5 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

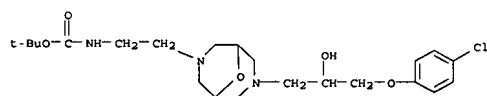
RN 917227-07-7 CAPLUS
 CN Carbamic acid, N-[2-[7-[2-(2-(4-cyanophenyl)ethoxy)ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)



RN 917227-09-9 CAPLUS
 CN Carbamic acid, N-[2-[7-[3-(4-fluorophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)



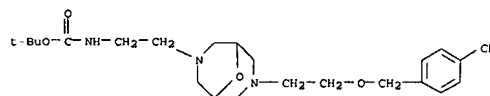
RN 917227-10-2 CAPLUS
 CN Carbamic acid, N-[2-[7-[3-(4-chlorophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)



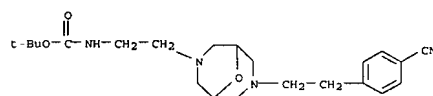
RN 917227-11-3 CAPLUS
 CN Carbamic acid, N-[2-[7-[2-(2-(4-cyanophenoxy)ethoxy)ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

L4 ANSWER 5 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 917227-02-2 CAPLUS
 CN Carbamic acid, N-[2-[7-[2-(4-cyanophenyl)methoxy]ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

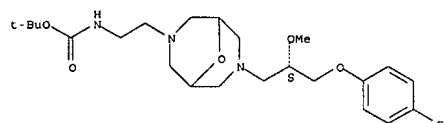


RN 917227-03-3 CAPLUS
 CN Carbamic acid, N-[2-[7-[2-(4-cyanophenyl)ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)



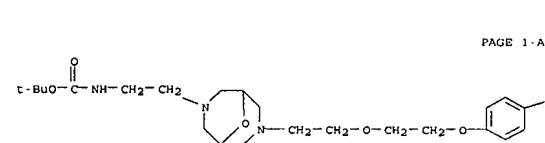
RN 917227-04-4 CAPLUS
 CN Carbamic acid, N-[2-[7-[(2S)-3-(4-cyanophenoxy)-2-methoxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

Absolute stereochemistry.



RN 917227-06-6 CAPLUS
 CN Carbamic acid, N-[2-[7-[3-[(4-cyanophenyl)sulfonyl]propyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

L4 ANSWER 5 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

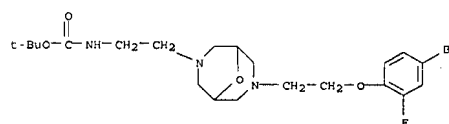


PAGE 1-A

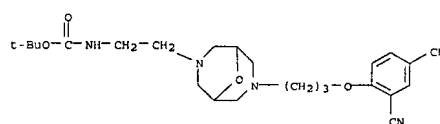
PAGE 1-B

CN

RN 917227-12-4 CAPLUS
 CN Carbamic acid, N-[2-[7-[2-(4-bromo-2-fluorophenoxy)ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)



RN 917227-13-5 CAPLUS
 CN Carbamic acid, N-[2-[7-[3-(2,4-dicyanophenoxy)propyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)



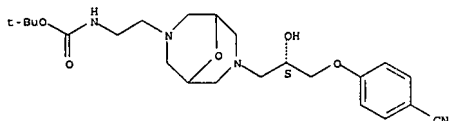
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 473584-06-4P 473584-08-6P, tert-Butyl [2-(9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl)ethyl]carbamate
 682742-70-7P

Habe

08/15/2007

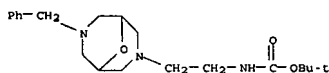
L4 ANSWER 5 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (new oxabispidine compds. for treatment of cardiac arrhythmias)
 RN 335619-18-6 CAPLUS
 CN Carbamic acid,
 N-[2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

Absolute stereochemistry.

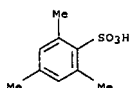


RN 473584-06-4 CAPLUS
 CN Benzenesulfonic acid, 2,4,6-trimethyl-, compd. with 1,1-dimethylethyl N-[2-[7-(phenylmethyl)-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate (1:1) (CA INDEX NAME)

CM 1
 CRN 473584-04-2
 CMF C20 H31 N3 O3



CM 2
 CRN 3453-83-6
 CMF C9 H12 O3 S



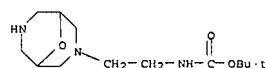
L4 ANSWER 6 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
 ACCESSION NUMBER: 2005:1350320 CAPLUS
 DOCUMENT NUMBER: 144:69869
 TITLE: Preparation of novel oxabispidine compounds and their use in the treatment of cardiac arrhythmias
 INVENTOR(S): Bjoerge, Annika; Bonn, Peter; Gran, Ulrik; Kajanus, Johan; Olsson, Christina; Ponten, Pritiof
 PATENT ASSIGNEE(S): AstraZeneca AB, Swed.
 SOURCE: PCT Int. Appl., 169 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005123748	A1	20051229	WO 2005-SE891	20050613
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
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AU 2005254924	A1	20051229	AU 2005-254924	20050613
CA 2568895	A1	20051229	CA 2005-2568895	20050613
EP 1765832	A1	20070328	EP 2005-752679	20050613
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, LV, MK, YU				
CN 1968956	A	20070523	CN 2005-80019259	20050613
WO 2006135316	A1	20061221	WO 2006-SE688	20060612
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
IN 2006DN07282	A	20070427	IN 2006-DN7282	20061204
NO 2007000148	A	20070109	NO 2007-148	20070109
PRIORITY APPL. INFO:			SE 2004-1539	A 20040615
			WO 2005-SE891	W 20050613
			SE 2005-2775	A 20051215

OTHER SOURCE(S): MARPAT 144:69869
 GI

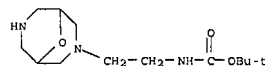
Hahte

L4 ANSWER 5 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
 RN 473584-08-6 CAPLUS
 CN Carbamic acid, N-[2-(9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl)ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

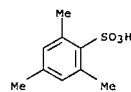


RN 682742-70-7 CAPLUS
 CN Benzenesulfonic acid, 2,4,6-trimethyl-, compd. with 1,1-dimethylethyl N-[2-(9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl)ethyl]carbamate (1:1) (CA INDEX NAME)

CM 1
 CRN 473584-08-6
 CMF C13 H25 N3 O3

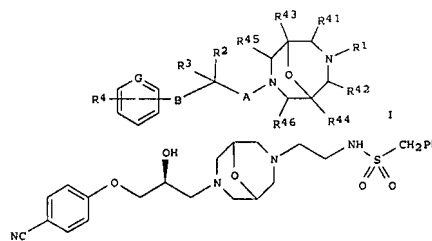


CM 2
 CRN 3453-83-6
 CMF C9 H12 O3 S



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE
 FORMAT

L4 ANSWER 6 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



AB There is provided oxabispidines (shown as I; variables defined below; e.g. N-[2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-1-phenylmethanesulfonamide (shown as I)), which are useful in the prophylaxis and in the treatment of arrhythmias, in particular atrial and ventricular arrhythmias. For I: R1 = C1-12 alkyl, -C(O)XR7, -C(O)N(R8a)R5d or -S(O)2R9a; R2 = H, halo, C1-6alkyl, OR13, EN(R14)R15 or, together with R3, carbonyl O; R3 = H, C1-6alkyl or, together with R3, carbonyl O; A = direct bond, -J-, -JN(R19a)-, -JS(O)2N(R19b)-, -JN(R19c)S(O)2-, -JO- (in which latter 4 groups, -J is attached to the oxabispidine ring N); B = -Z[C(O)]aC(H)(R20a)b-, -Z[C(O)]cN(R20b)-, -ZN(R20c)S(O)2-, -ZS(O)2N(R20d)-, -ZS(O)n-, -ZO- (in which six groups Z is attached to the C atom bearing R2 and R3), -N(R20e)Z-, -N(R20f)S(O)2Z-, -S(O)2N(R20g)Z-, or N(R20h)CO2Z- (in which latter 4 groups, Z is attached to the Ph or pyridyl group); J = C1-6alkylene optionally substituted; Z = a direct bond or C1-4 alkylene; G = CH or N; R4 = 21 optional -OH, cyano, halo, nitro, C1-6 alkyl (optionally terminated by -N(H)C(O)OR21a), C1-6 alkoxy, -N(R22a)R22b, -C(O)R22c, -C(O)OR22d -C(O)N(R22e)R22f -N(R22g)C(O)R22h, -N(R22i)C(O)N(R22j)R22k, -N(R22m)S(O)2R21b, -S(O)2N(R22n)R22o, -S(O)2R21c, -OS(O)2R21d and aryl; and R41 to R46 = H or C1-3 alkyl; addnl. details including provision are given in the claims. Methods of preparation are claimed and preps. and/or characterization data for approx. 12 examples of I and many intermediates are included. For example, II was prepared (72 %)

from phenylmethanesulfonyl chloride and 4-[[[(2S)-3-[7-(2-aminoethyl)-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]-2-hydroxypropyl]oxy]benzonitrile, the latter of which was prepared (69 %) by deprotection of tert Bu [2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-

08/15/2007

L4 ANSWER 6 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
yl)ethyl]carbamate. The example I were tested for primary electrophysiol.

IT 872046-32-7P, tert-Butyl [2-[7-[(2S)-3-(4-cyanophenoxy)ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

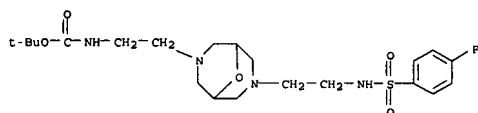
(drug candidate; preparation of novel oxabispidine compds. and their

use in treatment of cardiac arrhythmias)

RN 872046-32-7 CAPLUS

CN Carbamic acid,

[2-[7-[(2S)-3-(4-cyanophenoxy)ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



IT 335619-18-6, tert-Butyl [2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate
473584-08-6, tert-Butyl [2-(9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl)ethyl]carbamate 682742-70-7, [2-(9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl)ethyl]carbamate tert-butyl ester
2,4,6-trimethylbenzenesulfonate

RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of novel oxabispidine compds. and their use in treatment

of cardiac arrhythmias)

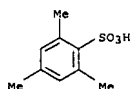
RN 335619-18-6 CAPLUS

CN Carbamic acid,

N-[2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

Absolute stereochemistry.

L4 ANSWER 6 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



IT 335620-86-5P, [2-[7-[3-(4-cyanophenoxy)propyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate tert-butyl ester
872045-68-6P, [2-[7-[2-(4-cyanophenoxy)ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate tert-butyl ester

diacetate

872045-91-5P, [2-[7-[2-(4-cyano-2-fluorophenoxy)ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate tert-butyl ester

872046-15-6P, tert-Butyl [2-[7-(4-cyanobenzyl)-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate 872046-16-7P,

tert-Butyl [2-[7-(4-cyanobenzyl)-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate acetate formate

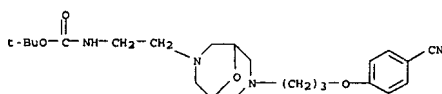
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of novel oxabispidine compds. and their use in treatment

of cardiac arrhythmias)

RN 335620-86-5 CAPLUS

CN Carbamic acid,

[2-[7-[3-(4-cyanophenoxy)propyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



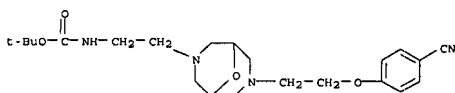
RN 872045-68-6 CAPLUS

CN Carbamic acid, [2-[7-[2-(4-cyanophenoxy)ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester, diacetate (9CI) (CA INDEX NAME)

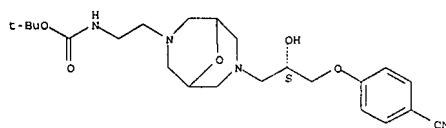
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CRN 335620-57-0

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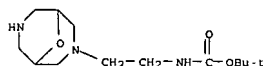


L4 ANSWER 6 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 473584-08-6 CAPLUS

CN Carbamic acid, N-[2-(9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl)ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)



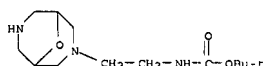
RN 682742-70-7 CAPLUS

CN Benzenesulfonic acid, 2,4,6-trimethyl-, compd. with 1,1-dimethylethyl N-[2-(9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl)ethyl]carbamate (1:1) (CA INDEX NAME)

CM 1

CRN 473584-08-6

CMF C13 H25 N3 O3



CM 2

CRN 3453-83-6

CMF C9 H12 O3 S

L4 ANSWER 6 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

CM 2

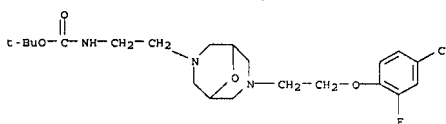
CRN 64-19-7

CMF C2 H4 O2



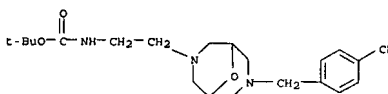
RN 872045-91-5 CAPLUS

CN Carbamic acid, N-[2-[7-[2-(4-cyano-2-fluorophenoxy)ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)



RN 872046-15-6 CAPLUS

CN Carbamic acid, N-[2-[7-[(4-cyanophenyl)methyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)



RN 872046-16-7 CAPLUS

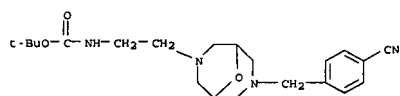
CN Carbamic acid, [2-[7-[(4-cyanophenyl)methyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester, acetate formate (9CI) (CA INDEX NAME)

CM 1

CRN 872046-15-6

CMF C21 H30 N4 O3

L4 ANSWER 6 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



CM 2

CRN 64-19-7

CMP C2 H4 O2



CM 3

CRN 64-18-6

CMP C H2 O2



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

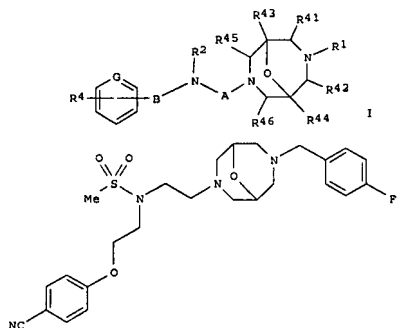
L4 ANSWER 7 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:1350102 CAPLUS
DOCUMENT NUMBER: 144:69868
TITLE: Preparation of novel oxabispidine compounds and their use in the treatment of cardiac arrhythmias
INVENTOR(S): Bjoere, Annika; Gran, Ulrik; Strandlund, Gert
PATENT ASSIGNEE(S): Astrazeneca AB, Swed.
SOURCE: PCT Int. Appl., 124 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005123747	A1	20051229	WO 2005-SE890	20050613
M:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BH, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
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CA 2569308	A1	20051229	CA 2005-2569308	20050613
EP 1765831	A1	20070328	EP 2005-751920	20050613
R:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, LV, MK, YU			
CN 1968957	A	20070523	CN 2005-80019875	20050613
IN 2006DN07284	A	20070427	IN 2006-DN7284	20061204
NO 2007000147	A	20070109	NO 2007-147	20070109
PRIORITY APPLN. INFO.:			SE 2004-1540	A 20040615
			WO 2005-SE890	W 20050613

OTHER SOURCE(S): MARPAT 144:69868
G1

L4 ANSWER 7 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



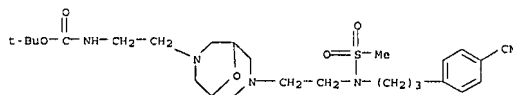
II

AB There is provided oxabispidines (shown as I; variables defined below; e.g.

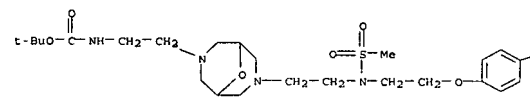
N-[2-(4-Cyanophenoxy)ethyl]-N-[2-(4-fluorobenzyl)-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethylmethanesulfonamide (shown as II)), which are useful in the prophylaxis and in the treatment of arrhythmias, in particular atrial and ventricular arrhythmias. For I: R1 = C1-12 alkyl, -C(O)XR7, -C(O)N(R8a)R5d or -S(O)2R9a; R2 = -S(O)2R3a, -C(O)OR3b, -C(O)R3c, -C(O)N(R3d)(R3e) or -S(O)2N(R3f)(R3g); A = C2-6 alkylene optionally interrupted by -S(O)2N(R8a)- or -N(R18b)S(O)2- and/or (un)substituted by Z1 -OH, halo and amino; B = -Z1[C(O)ac(W)(R19a)]b-, -Z2[C(O)]cN(R19b)-, -Z2S(O)n-, -Z2N(R18c)S(O)2-, -Z2S(O)2N(R18d)- or -Z2O- (in which six groups Z1 or Z2 are attached to the N atom bearing R2); Z1 = a direct bond or C1-4 alkylene; Z2 = C2-4 alkylene; G = CH or N; R4 = Z1 optional -OH, cyano, halo, nitro, C1-6 alkyl (optionally terminated by -N(H)C(O)OR21a), C1-6 alkoxy, -N(R22a)R22b, -C(O)R22c, -C(O)OR22d -C(O)N(R22e)R22f -N(R22g)C(O)R22h, -N(R22i)C(O)N(R22j)R22k, -N(R22m)S(O)2R21b, -S(O)2N(R22n)R22o, -S(O)2R21c, -OS(O)2R21d and aryl; and R41 to R46 = H or C1-3 alkyl; addnl. details including provisos are given in the claims. Methods of preparation are claimed and preps. and/or characterization data for approx. 15 examples of I and many intermediates are included. For example, II was prepared in 3 steps (46, 99, 63 %, resp.) starting with preparation of 7-[2-[[2-(4-cyanophenoxy)ethyl](methylsulfonyl)amino]ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]nonane-3-carboxylic acid tert-Bu ester from N-(2-bromoethyl)-N-[2-(4-cyanophenoxy)ethyl]methanesulfonamide (preparation given) and 9-oxa-3,7-diazabicyclo[3.3.1]nonane-3-carboxylic acid tert-Bu ester, with subsequent deprotection and N-alkylation by 1-bromomethyl-4-fluorobenzene. The example I were tested for primary

L4 ANSWER 7 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued) electrophysiol. effects in anesthetized guinea pigs and exhibit D10 >5.5. The example I were tested in a Rb+ efflux assay for detection of HERG channel blockers and exhibit pIC50 >4.5, e.g. 5.8 for II.

IT 872007-87-9P, tert-Butyl [2-[7-[2-[[3-(4-cyanophenyl)propyl](methylsulfonyl)amino]ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate 872008-52-1P, tert-Butyl [2-[7-[2-[[2-(4-cyanophenoxy)ethyl](methylsulfonyl)amino]ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate 872008-53-2P, tert-Butyl [2-[7-[2-[[aminocarbonyl](2-(4-cyanophenoxy)ethyl)amino]ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
use in (drug candidate; preparation of novel oxabispidine compds. and their treatment of cardiac arrhythmias)
RN 872007-87-9 CAPLUS
CN Carbamic acid,
[2-[7-[2-[[3-(4-cyanophenyl)propyl](methylsulfonyl)amino]ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl], 1,1-dimethylethyl ester (9C1) (CA INDEX NAME)



RN 872008-52-1 CAPLUS
CN Carbamic acid,
[2-[7-[2-[[2-(4-cyanophenoxy)ethyl](methylsulfonyl)amino]ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl], 1,1-dimethylethyl ester (9C1) (CA INDEX NAME)



PAGE 1-A

PAGE 1-B

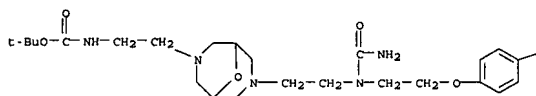
CN

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08/15/2007

L4 ANSWER 7 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
 RN 872008-53-2 CAPLUS
 CN Carbamic acid, [2-[7-[2-[(aminocarbonyl)[2-(4-cyanophenoxy)ethyl]amino]ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

CN

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE
 FORMAT

L4 ANSWER 8 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2004:354952 CAPLUS
 DOCUMENT NUMBER: 140:357385
 TITLE: Preparation of oxabispidine chemical intermediates and acid addition salts
 INVENTOR(S): Cladingboel, David
 PATENT ASSIGNEE(S): AstraZeneca AB, Swed.
 SOURCE: PCT Int. Appl., 24 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004035592	A1	20040429	WO 2003-SE1594	20031013
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MM, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
CA 2501413	A1	20040429	CA 2003-2501413	20031013
AU 2003269768	A1	20040504	AU 2003-269768	20031013
EP 1554285	A1	20050720	EP 2003-751697	20031013
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
BR 2003015112	A	20050816	BR 2003-15112	20031013
CN 1705671	A	20051207	CN 2003-80101351	20031013
JP 2006505565	T	20060216	JP 2004-545133	20031013
NZ 539371	A	20061027	NZ 2003-539371	20031013
ZA 2005002579	A	20060223	ZA 2005-2579	20050330
NO 2005001627	A	20050506	NO 2005-1627	20050401
US 2006199814	A1	20060907	US 2005-532223	20050406
MX 2005PA03812	A	20050608	MX 2005-PATENT	20050408
PRIORITY APPLN. INFO.:			GB 2002-23712	A 20021014
			WO 2003-SE1594	W 20031013

OTHER SOURCE(S): CASREACT 140:357385; MARPAT 140:357385
 GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB An acid addition salt of a compound I [R2 = C1-6 alkyl (optionally substituted and/or terminated by one or more substituents selected from -OH, halo,

L4 ANSWER 8 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
 cyano, nitro and aryl) or aryl, wherein each aryl and aryloxy group, unless otherwise specified, is optionally substituted) which is prep'd. from R16SO3H [R16 = C1-4-alkyl, C1-4-perfluoroalkyl, (un)substituted Ph, (optional substituents = C1-6-alkyl, halo, NO2, C1-4-alkoxy); esp., 4-MeC6H4SO3H, PhSO3H, nosylate, brosylate, besylate, mesylate]. A process for the prep'n. of oxabispidine deriv. II [R1 = ACR3R4BR5; A =

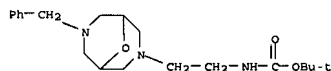
CH2; R3 = OH, NHR7; R4 = H, C1-6-alkyl; R3R4 = O; R5 = (un)substituted Ph, pyridyl (optionally substituted by OH, CN, halo, NO2, C1-6-alkyl); R7 = H, C1-6-alkyl, E-aryl, E-heteroaryl, C(=NH)NH2; E = bond, C1-4-alkylene; B = Z, ZNR12, NR12Z, ZS(O)n, ZO (where Z is attached to the R3, R4 carbon); Z = bond, C1-4-alkylene; R12 = H, C1-6-alkyl; n = 0, 1, 2; etc.] wherein salt of I is coupled with heterocycle III [Y = O, NR7]. Thus, 2,4,6-trimethylbenzenesulfonic acid addn. salt of I (R2 = CMe3) was prep'd.

from PhSO2NH2 via alkylation with epichlorohydrin to its bis(oxiranylmethyl) deriv., cyclization with PhCH2NH2 to the diazabicyclooctane, intramol. cyclization to the 9-oxa-3,7-diazabicyclo[3.3.1]nonane deriv., desulfonylation, coupling with 2-[(tert-butylloxycarbonyl)amino]ethyl 2,4,6-trimethylbenzenesulfonate, to give an acid addn. salt and hydrogenolytic debenzoylation.

2,4,6-Trimethylbenzenesulfonic acid addn. salt of I (R2 = CMe3) was converted to oxabispidine deriv. IV by reaction with 4-[(2S)-oxiranylmethoxy]benzonitrile (V).

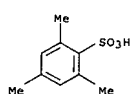
IT 473584-06-4P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation and hydrogenolytic debenzoylation; preparation of oxabispidine chemical intermediates and acid addition salts)

RN 473584-06-4 CAPLUS
 CN Benzenesulfonic acid, 2,4,6-trimethyl-, comp'd. with 1,1-dimethylethyl N-[2-[7-(phenylmethyl)-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate (1:1) (CA INDEX NAME)
 CM 1
 CRN 473584-04-2
 CMF C20 H31 N3 O3

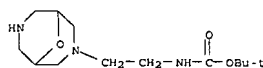


CM 2
 CRN 3453-83-6
 CMF C9 H12 O3 S

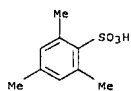
L4 ANSWER 8 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



IT 682742-70-7P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation and reaction of, with 4-[(2S)-oxiranylmethoxy]benzonitrile; preparation of oxabispidine chemical intermediates and acid addition salts)
 RN 682742-70-7 CAPLUS
 CN Benzenesulfonic acid, 2,4,6-trimethyl-, comp'd. with 1,1-dimethylethyl N-[2-(9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl)ethyl]carbamate (1:1) (CA INDEX NAME)
 CM 1
 CRN 473584-08-6
 CMF C13 H25 N3 O3

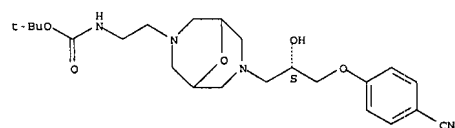


CM 2
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 CMF C9 H12 O3 S

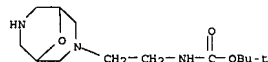


IT 335619-18-6P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of oxabispidine chemical intermediates and acid addition salts)
 RN 335619-18-6 CAPLUS
 CN Carbamic acid,
 N-[2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

L4 ANSWER 8 OF 18 CAPLUS COPYRIGHT 2007 ACS ON STN (Continued)
Absolute stereochemistry.



IT 473584-08-6DP, acid addition salts
RL: SPN (Synthetic preparation); PREP (Preparation)
of (reaction of, with 4-[(2S)-oxiranylmethoxy]benzonitrile; preparation
of oxabispidine chemical intermediates and acid addition salts)
RN 473584-08-6 CAPLUS
CN Carbamic acid, N-[2-(9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl)ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L4 ANSWER 9 OF 18 CAPLUS COPYRIGHT 2007 ACS ON STN
ACCESSION NUMBER: 2003:972050 CAPLUS

DOCUMENT NUMBER: 140:27751

TITLE: Preparation of azetidylbenzamides and related compounds for combination therapy of arrhythmia or coagulation controlled complications thereof.

INVENTOR(S): Roth-Rosendahl, Ann-Charlotte; Svernhage, Elisabeth

PATENT ASSIGNEE(S): AstraZeneca AB, Swed.

SOURCE: PCT Int. Appl., 160 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

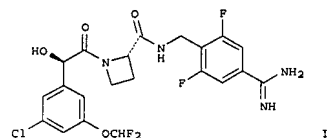
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003101956	A1	20031211	WO 2003-SE854	20030527
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
CA 2486110	A1	20031211	CA 2003-2486110	20030527
AU 2003232711	A1	20031219	AU 2003-232711	20030527
BR 2003011138	A	20050301	BR 2003-11138	20030527
EP 1513807	A1	20050316	EP 2003-756136	20030527
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
CN 1656066	A	20050817	CN 2003-811734	20030527
JP 2005532345	T	20051027	JP 2004-509650	20030527
NO 2004004673	A	20041207	NO 2004-4673	20041028
ZA 2004008787	A	20051020	ZA 2004-8787	20041029
IN 2004DN03380	A	20050401	IN 2004-DN3380	20041101
MX 2004PA11910	A	20050331	MX 2004-PA11910	20041129
US 2006052314	A1	20060309	US 2005-516426	20050628
PRIORITY APPLN. INFO.:			SE 2002-1662	A 20020531
			WO 2003-SE854	W 20030527

GI

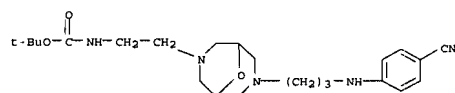
L4 ANSWER 9 OF 18 CAPLUS COPYRIGHT 2007 ACS ON STN (Continued)



AB A combination product comprising: (a) a compound of claim 1 in WO 02/44145 or a pharmaceutically-acceptable derivative thereof; and (b) (1) a compound as defined in claim 1 of WO 01/28992 or (2) a compound of Claim 34 of WO 01/28992 or (3) Compound A [4-[(3-(7-(3,3-dimethyl-2-oxobutyl)-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl)propyl)amino]benzonitrile] or B [tert-Bu 2-[7-[3-(4-cyanoamino)propyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethylcarbamate] or C [tert-Bu 2-[7-(4-(4-cyanophenyl)butyl)-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethylcarbamate] or D [tert-Bu 2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethylcarbamate] or pharmaceutically acceptable salts thereof in admixt. with a pharmaceutically acceptable adjuvant, diluent or carrier, is claimed. Thus, title compound (1) (multistep preparation given) showed an IC50 TT value of <0.02 μM.

IT 335619-16-4 335619-18-6 633336-84-2
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(combination therapy; preparation of azetidylbenzamides and related compds. for combination therapy of arrhythmia or coagulation controlled complications thereof)

RN 335619-16-4 CAPLUS
CN Carbamic acid, [2-(7-[3-[(4-cyanophenyl)amino]propyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

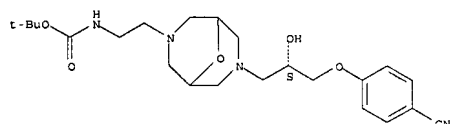


RN 335619-18-6 CAPLUS
CN Carbamic acid, N-[2-(7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

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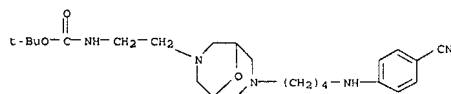
L4 ANSWER 9 OF 18 CAPLUS COPYRIGHT 2007 ACS ON STN (Continued)

Absolute stereochemistry.



RN 633336-84-2 CAPLUS

CN Carbamic acid, [2-(7-[4-[(4-cyanophenyl)amino]butyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

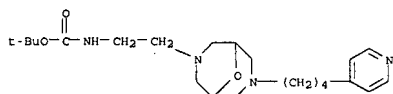
08/15/2007

L4 ANSWER 10 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2003:892637 CAPLUS
 DOCUMENT NUMBER: 139:369750
 TITLE: A combination product comprising melagatran and an antiarrhythmic oxabispipendine
 INVENTOR(S): Svernhage, Elisabeth
 PATENT ASSIGNEE(S): AstraZeneca AB, Swed.
 SOURCE: PCT Int. Appl., 42 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

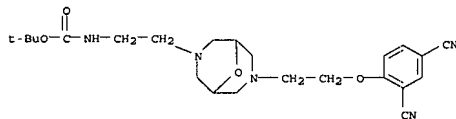
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003092721	A1	20031113	WO 2003-SE720	20030505
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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2483001	A1	20031113	CA 2003-2483001	20030505
AU 2003224590	A1	20031117	AU 2003-224590	20030505
EP 1503782	A1	20050209	EP 2003-721266	20030505
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
BR 2003009354	A	20050215	BR 2003-9354	20030505
CN 1652811	A	20050810	CN 2003-810212	20030505
JP 2005531546	T	20051020	JP 2004-500904	20030505
IN 2004DN03033	A	20070420	IN 2004-DN3033	20041005
NO 2004004554	A	20041116	NO 2004-4554	20041022
ZA 2004008615	A	20060426	ZA 2004-8615	20041025
MX 2004PA10716	A	20050307	MX 2004-PA10716	20041028
US 2006074080	A1	20060406	US 2004-513187	20041101
SE 2002-1373 A 20020506				
WO 2003-SB720 W 20030505				
WO 2003-SE720 W 20030505				

OTHER SOURCE(S): MARPAT 139:369750
 AB There is provided a combination product comprising: (1) melagatran or a pharmaceutically-acceptable derivative thereof; and (1) a compound as defined in claim 1 of WO 01/28992 or (2) a compound of Claim 34 of WO 01/28992 or (3) Compound A or B or C or D (or pharmaceutically-acceptable salts thereof) for use in treating arrhythmia or a coagulation controlled complication thereof.

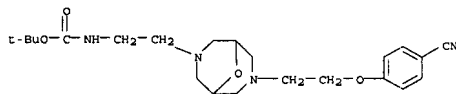
L4 ANSWER 10 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
 RN 335619-20-0 CAPLUS
 CN Carbamic acid, [2-[7-[4-(4-pyridinyl)butyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 335620-25-2 CAPLUS
 CN Carbamic acid, [2-[7-[2-(2,4-dicyanophenoxy)ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

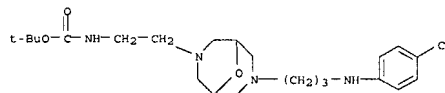


RN 335620-57-0 CAPLUS
 CN Carbamic acid, [2-[7-[2-(4-cyanophenoxy)ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

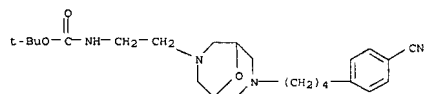


RN 335620-86-5 CAPLUS
 CN Carbamic acid, [2-[7-[3-(4-cyanophenoxy)propyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

L4 ANSWER 10 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
 IT 335619-16-4 335619-17-5 335619-18-6
 335619-20-0 335620-25-2 335620-57-0
 335620-86-5 335620-91-2 335620-92-3
 335620-93-4
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (combination product comprising melagatran and an antiarrhythmic oxabispipendine)
 RN 335619-16-4 CAPLUS
 CN Carbamic acid, [2-[7-[3-[(4-cyanophenyl)amino]propyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

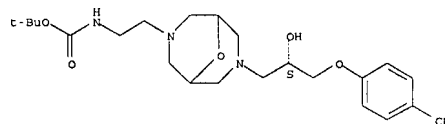


RN 335619-17-5 CAPLUS
 CN Carbamic acid, [2-[7-[4-(4-cyanophenyl)butyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



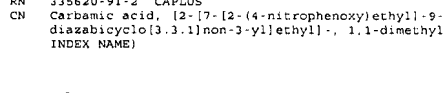
RN 335619-18-6 CAPLUS
 CN Carbamic acid, [2-[7-[2-(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

Absolute stereochemistry.

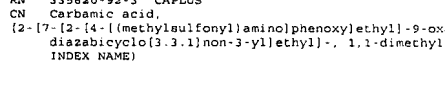


L4 ANSWER 10 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

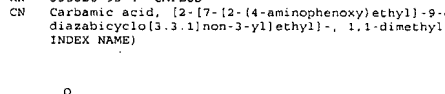
RN 335620-91-2 CAPLUS
 CN Carbamic acid, [2-[7-[2-(4-nitrophenoxy)ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 335620-92-3 CAPLUS
 CN Carbamic acid, [2-[7-[2-[4-[(methylsulfonyl)amino]phenoxy]ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 335620-93-4 CAPLUS
 CN Carbamic acid, [2-[7-[2-(4-aminophenoxy)ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RECORD.

FORMAT

L4 ANSWER 10 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

L4 ANSWER 11 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN

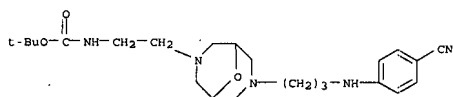
ACCESSION NUMBER: 2003:892636 CAPLUS
 DOCUMENT NUMBER: 139:369749
 TITLE: A combination product comprising an anti coagulant and anti-arrhythmic oxabispidenes
 INVENTOR(S): Roth-Rosendahl, Ann-Charlotte; Svernhage, Elisabeth
 PATENT ASSIGNEE(S): Astrazeneca AB, Swed.
 SOURCE: PCT Int. Appl., 55 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003092720	A1	20031113	WO 2003-SE719	20030505
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RN:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GO, GW, ML, MR, NE, SN, TD, TG			
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AU 2003230517	A1	20031117	AU 2003-230517	20030505
EP 1503783	A1	20050209	EP 2003-723588	20030505
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
BR 2005009336	A	20050308	BR 2003-9336	20030505
US 2005119259	A1	20050602	US 2003-513190	20030505
CN 1652812	A	20050810	CN 2003-810327	20030505
JP 2005529140	T	20050929	JP 2004-500903	20030505
IN 2004DN03029	A	20070420	IN 2004-DN3029	20041005
NO 2004004555	A	20041116	NO 2004-4555	20041022
ZA 2004008618	A	20060628	ZA 2004-8618	20041025
MX 2004PA10717	A	20050307	MX 2004-PA10717	20041028
PRIORITY APPLN. INFO.:			SE 2002-1374	A 20020506
			WO 2003-SE719	W 20030505

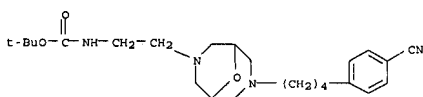
OTHER SOURCE(S): MARPAT 139:369749
 AB There is provided a combination product comprising: (1) an anti-coagulant; and (1) a compound as defined in claim 1 of WO 01/28992 or (2) a compound of Claim 34 of WO 01/28992 or (3) Compound A or B or C or D (or pharmaceutically-acceptable salts thereof) for use in treating arrhythmia or a coagulation controlled complication thereof.
 IT 335619-16-4 335619-17-5 335619-18-6
 335619-20-0 335620-25-2 335620-57-0
 335620-86-5 335620-91-2 335620-92-3

L4 ANSWER 11 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

335620-93-4
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (combination product comprising an anticoagulant and antiarrhythmic oxabispidenes)
 RN 335619-16-4 CAPLUS
 CN Carbamic acid, [2-[7-[3-[(4-cyanophenyl)amino]propyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

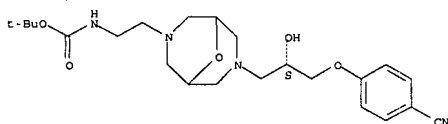


RN 335619-17-5 CAPLUS
 CN Carbamic acid, [2-[7-[4-(4-cyanophenyl)butyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



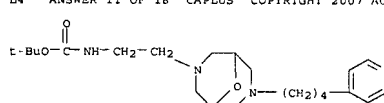
RN 335619-18-6 CAPLUS
 CN Carbamic acid, N-[2-[7-[3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

Absolute stereochemistry.

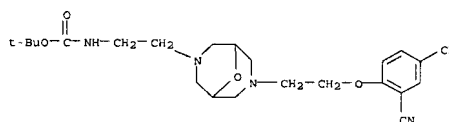


RN 335619-20-0 CAPLUS
 CN Carbamic acid, [2-[7-[4-(4-pyridinyl)butyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

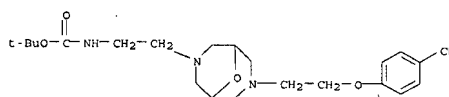
L4 ANSWER 11 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



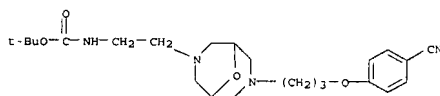
RN 335620-25-2 CAPLUS
 CN Carbamic acid, [2-[7-[2-(2,4-dicyanophenoxy)ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 335620-57-0 CAPLUS
 CN Carbamic acid, [2-[7-[2-(4-cyanophenoxy)ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 335620-86-5 CAPLUS
 CN Carbamic acid, [2-[7-[3-(4-cyanophenoxy)propyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

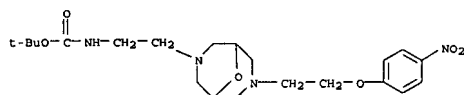


RN 335620-91-2 CAPLUS
 CN Carbamic acid, [2-[7-[2-(4-nitrophenoxy)ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

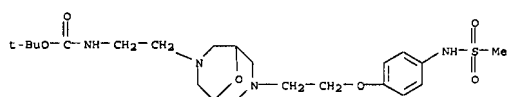
Habe

08/15/2007

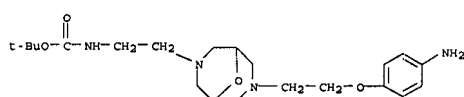
L4 ANSWER 11 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
INDEX NAME]



RN 335620-92-3 CAPLUS
CN Carbamic acid, [2-[7-[2-[4-[(methylsulfonyl)amino]phenoxy]ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 335620-93-4 CAPLUS
CN Carbamic acid, [2-[7-[2-[4-aminophenoxy]ethyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



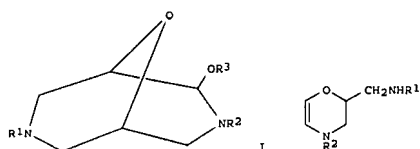
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L4 ANSWER 12 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:434566 CAPLUS
DOCUMENT NUMBER: 139:22219
TITLE: Process for the preparation of 2- or 9-oxa-3,7-diazabicyclo[3.3.1]nonanes from 2-aminomethyl-2,3-dihydrooxazines
INVENTOR(S): Gill, Duncan Michael
PATENT ASSIGNEE(S): AstraZeneca A.B., Swed.; AstraZeneca UK Limited
SOURCE: PCT Int. Appl., 39 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

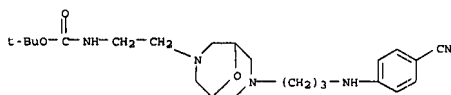
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003045956	A1	20030605	WO 2002-GB5262	20021120
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GO, GW, ML, MR, NE, SN, TD, TG			
CA 2465840	A1	20030605	CA 2002-2465840	20021120
AU 2002343067	A1	20030610	AU 2002-343067	20021120
BR 2002014225	A	20040921	BR 2002-14225	20021120
EP 1468001	A1	20041020	EP 2002-779729	20021120
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK			
CN 1589272	A	20050302	CN 2002-823148	20021120
JP 2005514376	T	20050519	JP 2003-547406	20021120
ZA 2004003782	A	20050317	ZA 2004-3782	20040517
MX 2004PA04708	A	20040819	MX 2004-PA4708	20040518
US 2005014940	A1	20050120	US 2004-496498	20040521
NO 2004002593	A	20040820	NO 2004-2593	20040621
PRIORITY APPLN. INFO.:			SE 2001-3908	A 20011122
			WO 2002-GB5262	W 20021120

OTHER SOURCE(S): CASREACT 139:22219; MARPAT 139:22219
G1

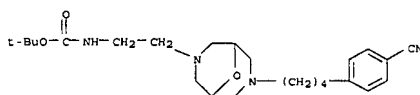
L4 ANSWER 12 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



AB Oxadiazabicyclononanes I (R1 = H, aryl, (un)substituted alkyl; R2 = protective group; R3 = alkyl, CH2Ph) were prepared by treating an aminomethyl-dihydrooxazine II with either: (a) a formaldehyde and R3OH and/or (b) a protected derivative of a formaldehyde. Thus, I (R1 = CH2Ph, R2 = CO2CH2Ph, R3 = Me) was prepared from N-oxiranylmethylphthalimide and PhCH2NHCH2CH(OMe)2 via cyclization of II (R1 = CH2Ph, R2 = CO2CH2Ph) over Pd-C gave 3-benzyl-9-oxa-3,7-diazabicyclo[3.3.1]nonane.
IT 335619-16-4P 335619-17-5P 537977-46-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(process for the preparation of 2- or 9-oxa-3,7-diazabicyclo[3.3.1]nonanes from 2-aminomethyl-2,3-dihydrooxazines)
RN 335619-16-4 CAPLUS
CN Carbamic acid, [2-[7-[3-[(4-cyanophenyl)amino]propyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



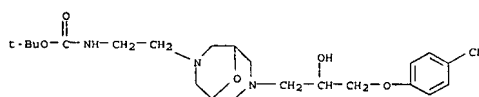
RN 335619-17-5 CAPLUS
CN Carbamic acid, [2-[7-[4-[(4-cyanophenyl)butyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 537977-46-1 CAPLUS

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L4 ANSWER 12 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
CN Carbamic acid, [2-[7-[3-[(4-cyanophenyl)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

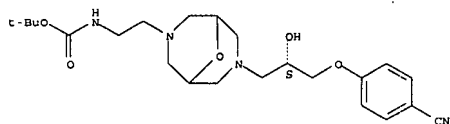
08/15/2007

L4 ANSWER 13 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2003:5810 CAPLUS
 DOCUMENT NUMBER: 138:78457
 TITLE: Oral pharmaceutical formulations containing
 L-carrageenan and gelling polymers
 INVENTOR(S): Gaik-Lim Khoo, Cynthia; Gustafsson, Helena
 PATENT ASSIGNEE(S): Astrazeneca AB, Swed.
 SOURCE: PCT Int. Appl., 55 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003000293	A1	20030103	WO 2002-SE1217	20020619
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2450449	A1	20030103	CA 2002-2450449	20020619
AU 2002345463	A1	20030108	AU 2002-345463	20020619
EP 1401502	A1	20040331	EP 2002-744027	20020619
EP 1401502	B1	20051228		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
EE 200400028	A	20040415	EE 2004-28	20020619
BR 2002010489	A	20040622	BR 2002-10489	20020619
CN 1518462	A	20040804	CN 2002-812534	20020619
HU 200400850	A2	20040830	HU 2004-850	20020619
JP 2005501024	T	20050113	JP 2003-506935	20020619
NZ 530086	A	20050930	NZ 2002-530086	20020619
AT 314093	T	20060115	AT 2002-744027	20020619
ES 2254699	T3	20060616	ES 2002-2744027	20020619
IN 2003MN01087	A	20051021	IN 2003-MN1087	20031127
ZA 2003009316	A	20050228	ZA 2003-9316	20031128
MX 2003PA11546	A	20040319	MX 2003-PA11546	20031211
BG 108516	A	20041230	BG 2004-108516	20040106
US 2004242536	A1	20041202	US 2004-481232	20040723
PRIORITY APPLN. INFO.:			SE 2001-2069	A 20010621
			SE 2001-4049	A 20011130
			SE 2002-1660	A 20020531
			WO 2002-SE1217	W 20020619

AB An oral pharmaceutical formulation comprising L-carrageenan, one or more neutral gelling polymers and a basic pharmaceutical inhibits the release of the active ingredient from the formulation at acidic pH. A

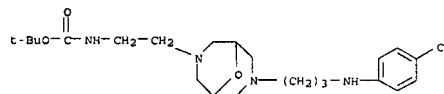
L4 ANSWER 13 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



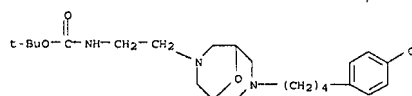
REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE
 FORMAT

L4 ANSWER 13 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
 process for the manuf. of the formulation and the use of the formulations are also disclosed. Tablets were obtained by the direct compression of H 376/95 (basic drug) 50.5, PEG 160.0, L-carrageenan 40.0, and sodium stearyl fumarate 2.5 mg. The release of H376/95 from blends with varying compn. ratios of PEG and L-carrageenan was detd. Blending different ratios of the anionic polymer, L-carrageenan and the neutral gelling polymer PEG, the release rate in media with different pH can be modified.
 IT 335619-16-4 335619-17-5 335619-18-6
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (oral pharmaceutical formulations containing L-carrageenan and

gelling polymers and basic drugs)
 RN 335619-16-4 CAPLUS
 CN Carbamic acid, [2-[7-[3-[(4-cyanophenyl)amino]propyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 335619-17-5 CAPLUS
 CN Carbamic acid, [2-[7-[4-(4-cyanophenyl)butyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 335619-18-6 CAPLUS
 CN Carbamic acid, N-[2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

Absolute stereochemistry.

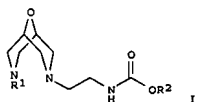
L4 ANSWER 14 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:814147 CAPLUS
 DOCUMENT NUMBER: 137:325449
 TITLE: Preparation of
 (alkoxycarbonylaminoethyl)oxabispindines
 by reaction of oxabispindines with
 alkoxycarbonylaminoethyl sulfonates or with
 acrylamide
 and alcohols.
 INVENTOR(S): Cheema, Lal; Cladingboel, David; Sinclair, Rhona
 PATENT ASSIGNEE(S): Astrazeneca AB, Swed.
 SOURCE: PCT Int. Appl., 76 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002083690	A1	20021024	WO 2002-SE727	20020412
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2443475	A1	20021024	CA 2002-2443475	20020412
AU 2002249748	A1	20021028	AU 2002-249748	20020412
EP 1385850	A1	20040204	EP 2002-718766	20020412
EP 1385850	B1	20041208		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
CN 1520417	A	20040811	CN 2002-811575	20020412
BR 2002008861	A	20041019	BR 2002-8861	20020412
JP 2004533432	T	20041104	JP 2002-581445	20020412
AT 284405	T	20041215	AT 2002-718766	20020412
PT 1385850	T3	20050331	PT 2002-718766	20020412
ES 2233809	T	20050616	ES 2002-718766	20020412
NZ 528515	A	20050624	NZ 2002-528515	20020412
IN 2003MN00904	A	20050715	IN 2003-MN904	20030924
ZA 2003007676	A	20040713	ZA 2003-7676	20031001
NO 2003004526	A	20031031	NO 2003-4526	20031009
MX 2003PA09211	A	20040129	MX 2003-PA9211	20031009
US 2004181060	A1	20040916	US 2004-474593	20040422
US 7169921	B2	20070130		
HK 1050886	A1	20050527	HK 2004-103893	20040531
PRIORITY APPLN. INFO.:			SE 2001-1324	A 20010412
			WO 2002-SE727	W 20020412

OTHER SOURCE(S): CASREACT 137:325449; MARPAT 137:325449
 GI

L4 ANSWER 14 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



AB Title compds. [I; R1 = H, protecting group, R5BCR3R4A; R3 = H, halo, alkyl, etc.; R4 = H, alkyl; R3R4 = O; R5 = (substituted) Ph, pyridyl; A = bond, alkylene, alkyleneoxy, alkyleneimino, etc.; B = bond, alkylene, O, alkyleneoxy, etc.; R2 = (substituted) alkyl, aryl] were prepared by reaction of the corresponding oxabispindines with R16SO2OCH2CH2NHCOR2 [R2 as above;

R16 = alkyl, perfluoroalkyl, (substituted) Ph] or with acrylamide, followed by reaction of the resulting intermediate amide with R2OH and an agent that promotes, or agents that in combination promote, rearrangement and oxidation of the amide to an intermediate isocyanate, which may then react with R2OH. Thus, 3-benzyl-9-oxa-3,7-diazabicyclo[3.3.1]nonane dihydrochloride [preparation given] in H2O was added slowly to a solution of NaHCO3 in H2O; more H2O was added and the mixture was stirred at room temperature for 10 min. A solution of 2-(tert-butyloxycarbonylamino)ethyl tosylate [preparation given] in PhMe was added and the mixture was heated at 65-70°

for 7 h and stirred at room temperature overnight to give [2-(7-benzyl-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl)ethyl]carbamate tert-Bu ester.

IT 335619-16-4P 335619-18-6P 473584-04-2P

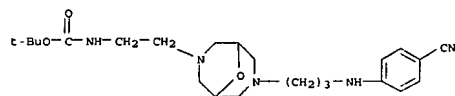
473584-06-4P 473584-08-6P

RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)

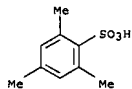
(preparation of (alkoxycarbonylaminoethyl)oxabispindines by reaction of oxabispindines with alkoxycarbonylaminoethyl sulfonates or with acrylamide and alic.)

RN 335619-16-4 CAPLUS

CN Carbamic acid, N-[2-[7-[3-[(4-cyanophenyl)amino]propyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

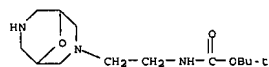


L4 ANSWER 14 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 473584-08-6 CAPLUS

CN Carbamic acid, N-[2-(9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl)ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

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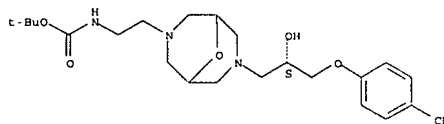
L4 ANSWER 14 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 335619-18-6 CAPLUS

CN Carbamic acid,

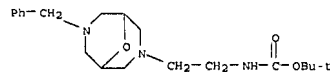
N-[2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

Absolute stereochemistry.



RN 473584-04-2 CAPLUS

CN Carbamic acid, N-[2-[7-(phenylmethyl)-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)



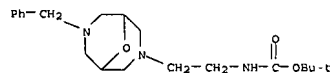
RN 473584-06-4 CAPLUS

CN Benzenesulfonic acid, 2,4,6-trimethyl-, compd. with 1,1-dimethylethyl N-[2-[7-(phenylmethyl)-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate (1:1) (CA INDEX NAME)

CM 1

CRN 473584-04-2

CMF C20 H31 N3 O3



CM 2

CRN 3453-83-6

CMF C9 H12 O3 S

L4 ANSWER 15 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:814146 CAPLUS

DOCUMENT NUMBER: 137:316095

TITLE: Immediate-release formulations for 3,7 diazabicyclo anclarrhythmic compounds

INVENTOR(S): Nordal, Christina; Lundgren, Anna

PATENT ASSIGNEE(S): AstraZeneca AB, Swed

SOURCE: PCT Int. Appl., 87 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002083689	A1	20021024	WO 2002-SR726	20020412
W: AB, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
TW 257391	B	20060701	TW 2002-91106495	20020401
CA 2443473	A1	20021024	CA 2002-2443473	20020412
AU 2002253750	A1	20021028	AU 2002-253750	20020412
EE 200300495	A	20031215	EE 2003-495	20020412
HU 200403486	A2	20040128	HU 2003-3486	20020412
EP 1389212	A1	20040218	EP 2002-723011	20020412
EP 1389212	B1	20060712		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
BR 2002008828	A	20040309	BR 2002-8628	20020412
CN 1514839	A	20040721	CN 2002-811636	20020412
JP 2005500262	T	20050106	JP 2002-581444	20020412
NZ 528561	A	20050324	NZ 2002-528561	20020412
AT 332902	T	20050615	AT 2002-723011	20020412
IN 2003MN00905	A	20051021	IN 2003-MN905	20030924
ZA 2003007756	A	20050103	ZA 2003-7756	20031003
BG 108234	A	20050430	BG 2003-108234	20031006
NO 2003004529	A	20031208	NO 2003-4529	20031009
MX 2003PA09209	A	20040129	MX 2003-PA9209	20031009
US 2005037067	A1	20050217	US 2004-474584	20040311
PRIORITY APPLN. INFO.:				SE 2001-1329 A 20010412
				WO 2002-SE726 W 20020412

AB An immediate release pharmaceutical formulations are provided comprising, as active ingredient, 4-([3-[7-(3,3-dimethyl-2-oxobutyl)-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]propyl]amino)benzonitrile (Compound A), tert-Bu 2-[7-[3-(4-cyanoanilino)propyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethylcarbamate, tert-Bu 2-[7-[4-(4-cyanophenyl)butyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethylcarbamate, or tert-Bu 2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethylcarbamate (Compound D), or a pharmaceutically-acceptable salt of any

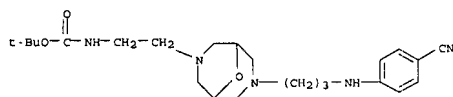
Habte

08/15/2007

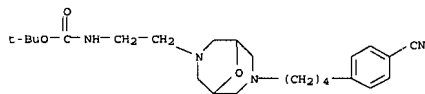
L4 ANSWER 15 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
of these compds., and a pharmaceutically acceptable diluent or carrier.
Solid pharmaceutical compns. are also provided comprising these
3,7-diazabicyclo compds. as an active ingredient, that are suitable for
the prepn. of immediate release pharmaceutical formulations, which may be
prepd., for example by freeze-drying. The formulations and compns. are
useful in the prophylaxis and/or treatment of cardiac arrhythmias. For
example, Compd. A as benzenesulfonic acid salt 70 μ mol was dissolved in
a hydroxypropyl- β -cyclodextrin/water (40:60 by wt.) vehicle to 1 mL.
The soly. of the salt was almost 40 times higher in this vehicle compared
to water alone. Also, tablets were prepd. by compression of dry mixt.
contg. 96.3 mg of dibasic calcium phosphate, 7.7 mg of sodium starch
glycolate, 7.7 mg of HPMC, 3.8 mg of sodium stearyl fumarate, and 250 mg
of Compd. D (free base). The final tablet wt. was about 365 mg and
disintegration time was 90 s in water (37°).

IT 335619-16-4P 335619-17-5P 335619-18-6P
472961-25-4P 472961-26-5P 472961-30-1P
472992-81-7P 472992-82-8P 472992-83-9P
472992-84-0P 472992-85-1P 472992-86-2P
472992-87-3P 472992-88-4P 472992-89-5P
RU: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological
study); PREP (Preparation); USES (Uses)
(preparation of immediate-release formulations for diazabicyclo
antiarrhythmic compds.)

RN 335619-16-4 CAPLUS
CN Carbamic acid, [2-[7-[3-[(4-cyanophenyl)amino]propyl]-9-oxa-3,7-
diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA
INDEX NAME)



RN 335619-17-5 CAPLUS
CN Carbamic acid, [2-[7-[4-(4-cyanophenyl)butyl]-9-oxa-3,7-
diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA
INDEX NAME)



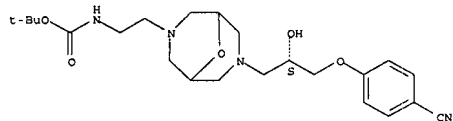
RN 335619-18-6 CAPLUS
CN Carbamic acid,
N-[2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-

L4 ANSWER 15 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-
yl]ethyl]carbamate (1:1) (9CI) (CA INDEX NAME)

CM 1

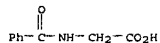
CRN 335619-18-6
CMF C23 H34 N4 O5

Absolute stereochemistry.



CM 2

CRN 495-69-2
CMF C9 H9 N O3

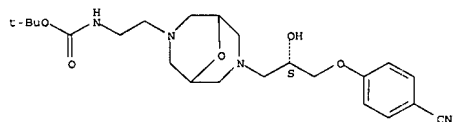


RN 472961-30-1 CAPLUS
CN Butanedioic acid, compd. with 1,1-dimethylethyl [2-[7-[(2S)-3-(4-
cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-
yl]ethyl]carbamate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 335619-18-6
CMF C23 H34 N4 O5

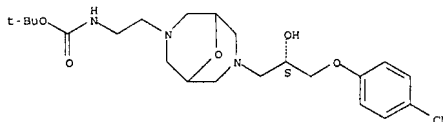
Absolute stereochemistry.



CM 2

L4 ANSWER 15 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX
NAME)

Absolute stereochemistry.

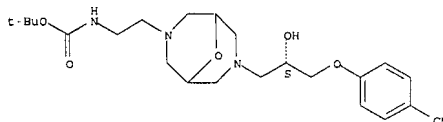


RN 472961-25-4 CAPLUS
CN Carbamic acid, [2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-
diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester,
monomethanesulfonate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 335619-18-6
CMF C23 H34 N4 O5

Absolute stereochemistry.



CM 2

CRN 75-75-2
CMF C H4 O3 S



RN 472961-26-5 CAPLUS
CN Glycine, N-benzoyl-, compd. with 1,1-dimethylethyl [2-[7-[(2S)-3-(4-

L4 ANSWER 15 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
CRN 110-15-6
CMF C4 H6 O4

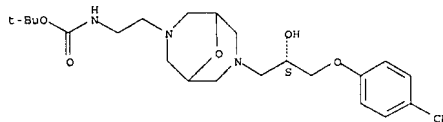
HO₂C-CH₂-CH₂-CO₂H

RN 472992-81-7 CAPLUS
CN L-lysine, compd. with 1,1-dimethylethyl [2-[7-[(2S)-3-(4-cyanophenoxy)-2-
hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate
(1:1), monohydrochloride (9CI) (CA INDEX NAME)

CM 1

CRN 335619-18-6
CMF C23 H34 N4 O5

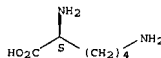
Absolute stereochemistry.



CM 2

CRN 56-87-1
CMF C6 H14 N2 O2

Absolute stereochemistry.



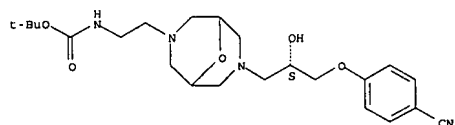
RN 472992-82-8 CAPLUS
CN 2-Naphthalenecarboxylic acid, 4,4'-methylenebis[3-hydroxy-, compd. with
1,1-dimethylethyl [2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-
3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate (1:1) (9CI) (CA INDEX
NAME)

CM 1

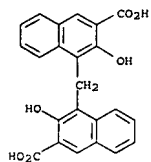
CRN 335619-18-6
CMF C23 H34 N4 O5

Absolute stereochemistry.

L4 ANSWER 15 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



CM 2

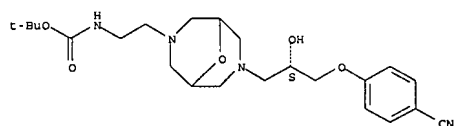
CRN 130-85-8
CMF C23 H16 O6

RN 472992-83-9 CAPLUS
CN 1,4-Benzenedicarboxylic acid, compd. with 1,1-dimethylethyl
[2-{7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-
diazabicyclo[3.3.1]non-3-yl}ethyl]carbamate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 335619-18-6
CMF C23 H34 N4 O5

Absolute stereochemistry.

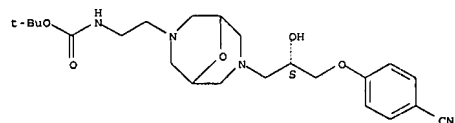


L4 ANSWER 15 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
diazabicyclo[3.3.1]non-3-yl}ethyl]-, 1,1-dimethylethyl ester,
2-hydroxy-1,2,3-propanetricarboxylate (1:1) (salt) (9CI) (CA INDEX NAME)

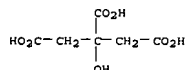
CM 1

CRN 335619-18-6
CMF C23 H34 N4 O5

Absolute stereochemistry.



CM 2

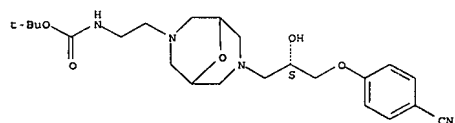
CRN 77-92-9
CMF C6 H8 O7

RN 472992-86-2 CAPLUS
CN Carbamic acid, [2-{7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-
diazabicyclo[3.3.1]non-3-yl}ethyl]-, 1,1-dimethylethyl ester, monoacetate
(salt) (9CI) (CA INDEX NAME)

CM 1

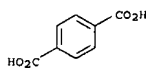
CRN 335619-18-6
CMF C23 H34 N4 O5

Absolute stereochemistry.



L4 ANSWER 15 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

CM 2

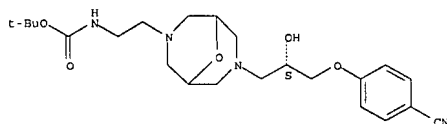
CRN 100-21-0
CMF C8 H6 O4

RN 472992-84-0 CAPLUS
CN Carbamic acid, [2-{7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-
diazabicyclo[3.3.1]non-3-yl}ethyl]-, 1,1-dimethylethyl ester,
(2R,3R)-2,3-dihydroxybutanedioate (1:1) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 335619-18-6
CMF C23 H34 N4 O5

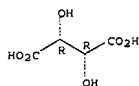
Absolute stereochemistry.



CM 2

CRN 87-69-4
CMF C4 H6 O6

Absolute stereochemistry.



RN 472992-85-1 CAPLUS
CN Carbamic acid, [2-{7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-
diazabicyclo[3.3.1]non-3-yl}ethyl]-, 1,1-dimethylethyl ester, monoacetate
(salt) (9CI) (CA INDEX NAME)

L4 ANSWER 15 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

CM 2

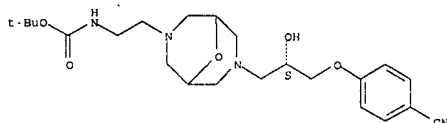
CRN 64-19-7
CMF C2 H4 O2

RN 472992-87-3 CAPLUS
CN Carbamic acid, [2-{7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-
diazabicyclo[3.3.1]non-3-yl}ethyl]-, 1,1-dimethylethyl ester,
monobenzoate (salt) (9CI) (CA INDEX NAME)

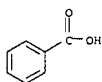
CM 1

CRN 335619-18-6
CMF C23 H34 N4 O5

Absolute stereochemistry.



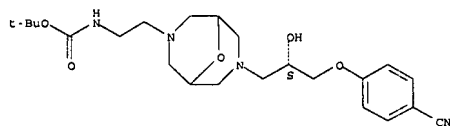
CM 2

CRN 65-85-0
CMF C7 H6 O2

RN 472992-88-4 CAPLUS
CN Carbamic acid, [2-{7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-
diazabicyclo[3.3.1]non-3-yl}ethyl]-, 1,1-dimethylethyl ester,
monohydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.

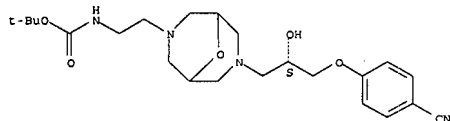
L4 ANSWER 15 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



● HCl

RN 472992-89-5 CAPLUS
CN Carbamic acid, [2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester, monohydrobromide (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● HBr

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L4 ANSWER 16 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
WO 2002-SE725 W 20020412

AB Substantially crystalline forms are provided of 4-[(3-[7-(3,3-dimethyl-2-oxobutyl)-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]propyl]amino]benzonitrile

(Compound A); tert-Bu 2-[7-[3-(4-cyanoanilino)propyl]-9-oxa-3,7-diazabicyclo-[3.3.1]non-3-yl]ethylcarbamate; tert-Bu 2-[7-[4-(4-cyanophenyl)butyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethylcarbamate; or tert-Bu 2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo-[3.3.1]non-3-yl]ethylcarbamate and pharmaceutically acceptable salts thereof, useful in the treatment of cardiac arrhythmias. For example, to 1.88 g of Compound A, dissolved in 23 mL Et acetate, was added 0.807 g of benzenesulfonic acid, dissolved in 4.5 mL methanol. The benzenesulfonate salt was precipitated, crystals were filtered off, washed with Et acetate and dried in vacuo (yield 1.6 g or 60%). The product was recrystd. from EtOH/H₂O (1:1) and crystals were characterized by x-ray powder diffraction (XRPD).

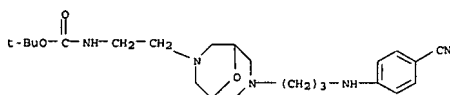
IT 335619-16-4P 335619-17-5P 335619-18-6P

RL: PEP (Physical, engineering or chemical process); PRP (Properties);

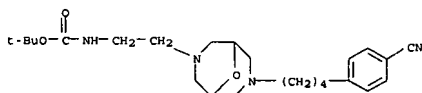
PYP

(Physical process); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); RACT (Reactant or reagent); USES (Uses)
(Preparation of crystalline diazabicyclo antiarrhythmic compds. for dosage forms)

RN 335619-16-4 CAPLUS
CN Carbamic acid, [2-[7-[3-[(4-cyanophenyl)amino]propyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 335619-17-5 CAPLUS
CN Carbamic acid, [2-[7-[4-(4-cyanophenyl)butyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 335619-18-6 CAPLUS

Habe

L4 ANSWER 16 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN

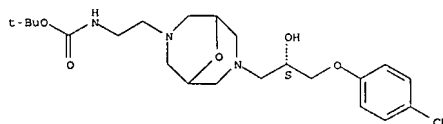
ACCESSION NUMBER: 2002:814145 CAPLUS
DOCUMENT NUMBER: 137:316094
TITLE: Crystalline 3,7-diazabicyclo antiarrhythmic compounds
INVENTOR(S): Barnwell, Neil; Bjoere, Annika; Cheema, Lal; Cladingboel, David; Herring, Adam; Loeqvist, Karin
PATENT ASSIGNEE(S): AstraZeneca AB, Swed.
SOURCE: PCT Int. Appl., 162 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002083688	A1	20021024	WO 2002-SE725	20020412
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW			
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TW 237025	B	20050801	TW 2002-9110493	20020401
CA 2443470	A1	20021024	CA 2002-2443470	20020412
AU 2002307584	A1	20021028	AU 2002-307584	20020412
EE 200300504	A	20031215	EE 2003-504	20020412
HU 200303487	A2	20040128	HU 2003-3487	20020412
EP 1389213	A1	20040218	EP 2002-761972	20020412
EP 1389213	B1	20060412		
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BR 2002008829	A	20040309	BR 2002-8829	20020412
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EP 1550663	A1	20050706	EP 2005-7851	20020412
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
AT 323095	T	20060415	AT 2002-761972	20020412
PT 1389213	T	20060731	PT 2002-761972	20020412
RU 2286993	C2	20061110	RU 2003-129231	20020412
ES 2261721	T3	20061116	ES 2002-2761972	20020412
IN 2003MN00907	A	20051021	IN 2003 MN907	20030924
ZA 2003007759	A	20050103	ZA 2003-7759	20031003
NO 2003004527	A	20031210	NO 2003-4527	20031009
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US 7217708	B2	20070515		
HK 1061026	A1	20061006	HK 2004-104077	20040608
PRIORITY APPLN. INFO.:			SE 2001-1327	A 20010412
			EP 2002-761972	A3 20020412

L4 ANSWER 16 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

CN Carbamic acid,
N-[2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

Absolute stereochemistry.



IT 472961-25-4P 472961-26-5P 472961-27-6P

472961-28-7P 472961-29-8P 472961-30-1P

472961-31-2P 472961-32-3P 472961-33-4P

472961-34-5P 472961-35-6P 472961-37-8P

RL: PEP (Physical, engineering or chemical process); PRP (Properties);

PYP

(Physical process); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(Preparation of crystalline diazabicyclo antiarrhythmic compds. for dosage forms)

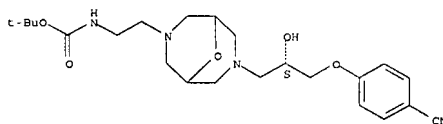
RN 472961-25-4 CAPLUS
CN Carbamic acid, [2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester, monomethanesulfonate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 335619-18-6

CMF C23 H34 N4 O5

Absolute stereochemistry.



CM 2

CRN 75-75-2

CMF C H4 O3 S

08/15/2007

L4 ANSWER 16 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

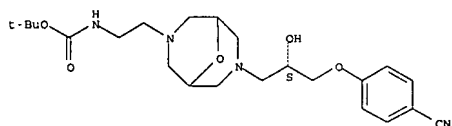


RN 472961-26-5 CAPLUS
 CN Glycine, N-benzoyl-, compd. with 1,1-dimethylethyl [2-{7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl}ethyl]carbamate (1:1) (9CI) (CA INDEX NAME)

CM 1

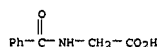
CRN 335619-18-6
 CMF C23 H34 N4 O5

Absolute stereochemistry.



CM 2

CRN 495-69-2
 CMF C9 H9 N O3

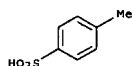


RN 472961-27-6 CAPLUS
 CN Carbamic acid, [2-{7-[4-(4-cyanophenyl)butyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl}ethyl]-, 1,1-dimethylethyl ester, monomethanesulfonate (9CI) (CA INDEX NAME)

CM 1

CRN 335619-17-5
 CMF C24 H36 N4 O3

L4 ANSWER 16 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

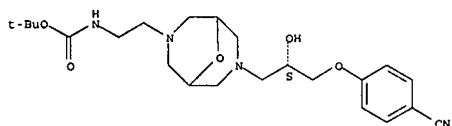


RN 472961-29-8 CAPLUS
 CN Glycine, N-([1,1'-biphenyl]-4-ylcarbonyl)-, compd. with 1,1-dimethylethyl [2-{7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl}ethyl]carbamate (1:1) (9CI) (CA INDEX NAME)

CM 1

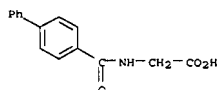
CRN 335619-18-6
 CMF C23 H34 N4 O5

Absolute stereochemistry.



CM 2

CRN 75446-59-2
 CMF C15 H13 N O3



RN 472961-30-1 CAPLUS
 CN Butanedioic acid, compd. with 1,1-dimethylethyl [2-{7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl}ethyl]carbamate (1:1) (9CI) (CA INDEX NAME)

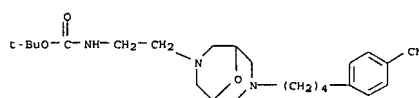
CM 1

CRN 335619-18-6
 CMF C23 H34 N4 O5

Absolute stereochemistry.

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L4 ANSWER 16 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



CM 2

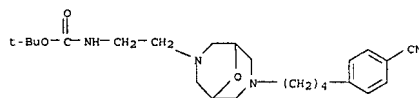
CRN 75-75-2
 CMF C H4 O3 S



RN 472961-28-7 CAPLUS
 CN Carbamic acid, [2-{7-[4-(4-cyanophenyl)butyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl}ethyl]-, 1,1-dimethylethyl ester, mono(4-methylbenzenesulfonate) (9CI) (CA INDEX NAME)

CM 1

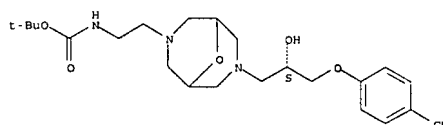
CRN 335619-17-5
 CMF C24 H36 N4 O3



CM 2

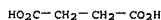
CRN 104-15-4
 CMF C7 H8 O3 S

L4 ANSWER 16 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



CM 2

CRN 110-15-6
 CMF C4 H6 O4

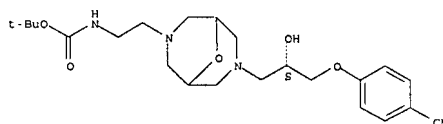


RN 472961-31-2 CAPLUS
 CN Glycine, N-(3,4-dichlorobenzoyl)-, compd. with 1,1-dimethylethyl [2-{7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl}ethyl]carbamate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 335619-18-6
 CMF C23 H34 N4 O5

Absolute stereochemistry.

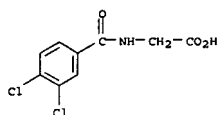


CM 2

CRN 17321-80-1
 CMF C9 H7 Cl2 N O3

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L4 ANSWER 16 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

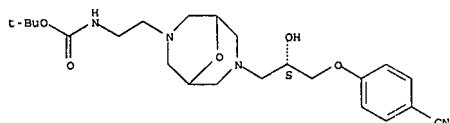


RN 472961-32-3 CAPLUS
 CN Glycine, N-(2-naphthalenylcarbonyl)-, compd. with 1,1-dimethylethyl
 [2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-
 diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate (1:1) (9CI) (CA INDEX NAME)

CM 1

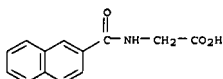
CRN 335619-18-6
 CMP C23 H34 N4 O5

Absolute stereochemistry.



CM 2

CRN 69826-63-7
 CMP C13 H11 N O3



RN 472961-33-4 CAPLUS
 CN Butanedioic acid, tetramethyl-, compd. with 1,1-dimethylethyl
 [2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-
 diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate (1:1) (9CI) (CA INDEX NAME)

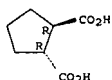
CM 1

L4 ANSWER 16 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

CM 2

CRN 1461-97-8
 CMP C7 H10 O4

Relative stereochemistry.

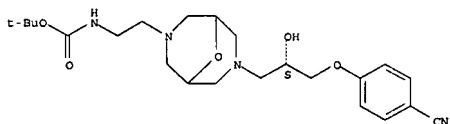


RN 472961-35-6 CAPLUS
 CN Butanedioic acid, 2,3-bis(benzoyloxy)-, (2S,3S)-, compd. with
 1,1-dimethylethyl [2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-
 3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 335619-18-6
 CMP C23 H34 N4 O5

Absolute stereochemistry.



CM 2

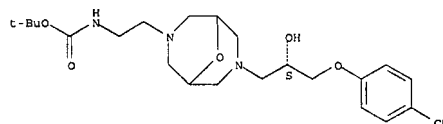
CRN 17026-42-5
 CMP C18 H14 O8

Absolute stereochemistry. Rotation (+).

L4 ANSWER 16 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

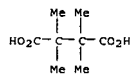
CRN 335619-18-6
 CMP C23 H34 N4 O5

Absolute stereochemistry.



CM 2

CRN 630-51-3
 CMP C8 H14 O4

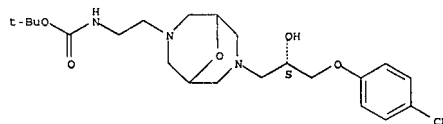


RN 472961-34-5 CAPLUS
 CN 1,2-Cyclopentanedicarboxylic acid, (1R,2R)-rel., compd. with
 1,1-dimethylethyl [2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-
 3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 335619-18-6
 CMP C23 H34 N4 O5

Absolute stereochemistry.



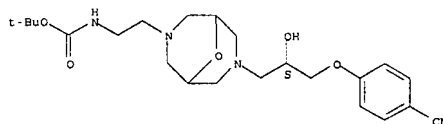
L4 ANSWER 16 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 472961-37-8 CAPLUS
 CN Butanedioic acid, 2,3-bis[(4-methylbenzoyloxy)-, (2S,3S)-, compd. with
 1,1-dimethylethyl [2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-
 3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 335619-18-6
 CMP C23 H34 N4 O5

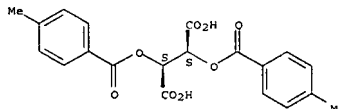
Absolute stereochemistry.



CM 2

CRN 32634-68-7
 CMP C20 H18 O8

Absolute stereochemistry. Rotation (+).



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

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L4 ANSWER 16 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

L4 ANSWER 17 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

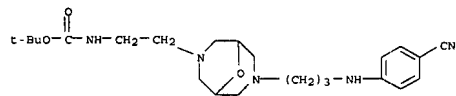
3-yl]ethylcarbamate, tert-Bu 2-[7-[(4-(4-cyanophenyl)butyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethylcarbamate, or tert-Bu 2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethylcarbamate, or a pharmaceutically acceptable salt, such as a benzenesulfonate or toluenesulfonate salt, embedded in a polymer matrix. The compns. are useful in the prophylaxis and/or treatment of cardiac arrhythmias. For example, sustained-release tablets were prepd. by compression of a polymer (hydroxyethyl cellulose or polyoxyethylene) dry mixed with the antiarrhythmic compd. Compd. A (free base or benzenesulfonate salt) in a wt. ratio of 1:1. Tablets had a diam. of 10 mm and wt. of about 250 mg. The hydroxyethyl cellulose tablets were coated with a 10% hydroxypropyl Me cellulose soln.

IT 335619-16-4P 335619-17-5P 335619-18-6P
472961-25-4P 472961-26-5P 472961-27-6P
472961-28-7P 472961-29-8P 472961-31-2P
472961-32-3P 472961-37-8P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(modified-release formulations for antiarrhythmic diazabicyclo compds. based on polymeric matrixes)

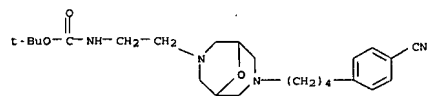
RN 335619-16-4 CAPLUS

CN Carbamic acid, [2-[7-[(4-(4-cyanophenyl)amino)propyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 335619-17-5 CAPLUS

CN Carbamic acid, [2-[7-[(4-(4-cyanophenyl)butyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 335619-18-6 CAPLUS

CN Carbamic acid, N-[2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

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L4 ANSWER 17 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:814144 CAPLUS

DOCUMENT NUMBER: 137:316093

TITLE: Modified-release formulations for 3,7-diazabicyclo antiarrhythmic compounds

INVENTOR(S): Carlsson, Hans; Larsson, Anette

PATENT ASSIGNEE(S): AstraZeneca AB, Swed.

SOURCE: PCT Int. Appl., 122 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

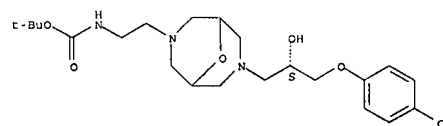
PATENT INFORMATION:

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WO 2002083687	A1	20021024	WO 2002-SE724	20020412
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW			
RM:	GH, GM, KE, LS, MW, SD, SL, SZ, T2, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
TW 259836	B	20060811	TW 2002-91106494	20020401
CA 2443464	A1	20021024	CA 2002-2443464	20020412
AU 2002253749	A1	20021028	AU 2002-253749	20020412
HU 200303481	A2	20040128	HU 2003-3481	20020412
EE 200300506	A	20040216	EE 2003 506	20020412
EP 1389211	A1	20040218	EP 2002-733010	20020412
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BR 2002008830	A	20040309	BR 2002-8830	20020412
CN 1514838	A	20040721	CN 2002-811634	20020412
JP 2004525969	T	20040826	JP 2002-581442	20020412
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PRIORITY APPLN. INFO.:			SE 2001-1325	A 20010412
			SE 2001-1326	A 20010412
			WO 2002-SE724	W 20020412

AB A modified release oral pharmaceutical composition is provided comprising an active ingredient, i.e., 4-[(3-[7-(3,3-dimethyl 2-oxobutyl)-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]propyl] amino)benzonitrile (Compound A), tert-Bu 2-[7-[3-(4-cyano-anilino)propyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-

L4 ANSWER 17 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

Absolute stereochemistry.



RN 472961-25-4 CAPLUS

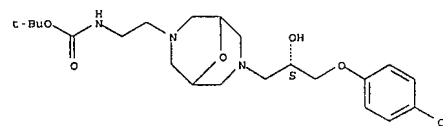
CN Carbamic acid, [2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester, monomethanesulfonate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 335619-18-6

CMF C23 H34 N4 O5

Absolute stereochemistry.



CM 2

CRN 75-75-2

CMF C H4 O3 S



RN 472961-26-5 CAPLUS

CN Glycine, N-benzoyl-, compd. with 1,1-dimethylethyl [2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate (1:1) (9CI) (CA INDEX NAME)

CM 1

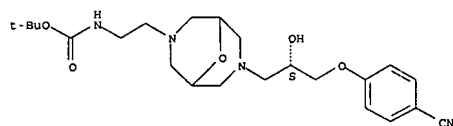
CRN 335619-18-6

CMF C23 H34 N4 O5

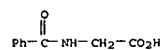
08/15/2007

L4 ANSWER 17 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

Absolute stereochemistry.

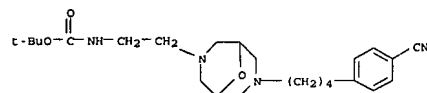


CM 2

CRN 495-69-2
CMF C9 H9 N O3

RN 472961-27-6 CAPLUS
CN Carbamic acid, [2-[7-[4-(4-cyanophenyl)butyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester, monomethanesulfonate (9CI) (CA INDEX NAME)

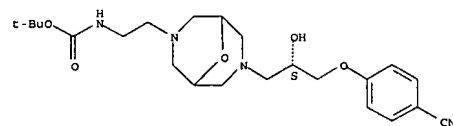
CM 1

CRN 335619-17-5
CMF C24 H36 N4 O3

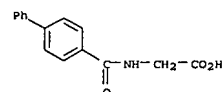
CM 2

CRN 75-75-2
CMF C H4 O3 S

L4 ANSWER 17 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



CM 2

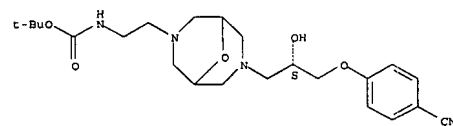
CRN 75446-59-2
CMF C15 H13 N O3

RN 472961-31-2 CAPLUS
CN Glycine, N-(3,4-dichlorobenzoyl)-, compd. with 1,1-dimethylethyl [2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 335619-18-6
CMF C23 H34 N4 O5

Absolute stereochemistry.



CM 2

CRN 17321-80-1
CMF C9 H7 Cl2 N O3

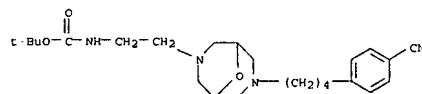
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L4 ANSWER 17 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

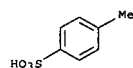


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CN Carbamic acid, [2-[7-[4-(4-cyanophenyl)butyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester, mono(4-methylbenzenesulfonate) (9CI) (CA INDEX NAME)

CM 1

CRN 335619-17-5
CMF C24 H36 N4 O3

CM 2

CRN 104-15-4
CMF C7 H8 O3 S

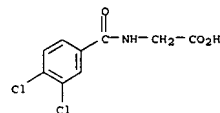
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CN Glycine, N-([1,1'-biphenyl]-4-ylcarbonyl)-, compd. with 1,1-dimethylethyl [2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 335619-18-6
CMF C23 H34 N4 O5

Absolute stereochemistry.

L4 ANSWER 17 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

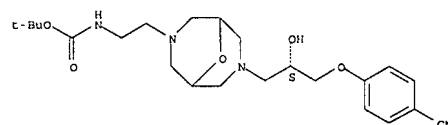


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CN Glycine, N-(2-naphthalenylcarbonyl)-, compd. with 1,1-dimethylethyl [2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate (1:1) (9CI) (CA INDEX NAME)

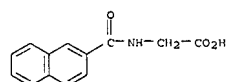
CM 1

CRN 335619-18-6
CMF C23 H34 N4 O5

Absolute stereochemistry.



CM 2

CRN 69826-63-7
CMF C13 H11 N O3

RN 472961-37-8 CAPLUS
CN Butanedioic acid, 2,3-bis[(4-methylbenzoyl)oxy]-, (2S,3S)-, compd. with 1,1-dimethylethyl [2-[7-[(2S)-3-(4-cyanophenoxy)-2-hydroxypropyl]-9-oxa-3,7-diazabicyclo[3.3.1]non-3-yl]ethyl]carbamate (1:1) (9CI) (CA INDEX NAME)

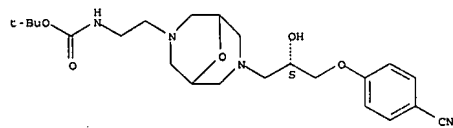
CM 1

CRN 335619-18-6
CMF C23 H34 N4 O5

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L4 ANSWER 17 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

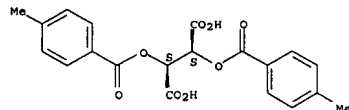
Absolute stereochemistry.



CM 2

CRN 32634-68-7
CMP C20 H18 O8

Absolute stereochemistry. Rotation (+).

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS
FORMAT RECORD. ALL CITATIONS AVAILABLE IN THE RE

L4 ANSWER 18 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:300673 CAPLUS
DOCUMENT NUMBER: 134:326548
TITLE: Preparation of 9-oxa-3,7-diazabicyclo[3.3.1]nonaneINVENTOR(S): antiarrhythmic Agents
Bjoere, Annika; Bjoerne, Magnus; Cladinghoel, David;
Hoffman, Kurt-Juergen; Pavey, John; Ponten, Fritiof;
Strandlund, Gert; Svensson, Peder; Thomson, Colin;
Wilstermann, MichaelPATENT ASSIGNEE(S): AstraZeneca Ab, Swed.; et al.
SOURCE: PCT Int. Appl., 159 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001028992	A2	20010426	WO 2000-SE1994	20001013
WO 2001028992	A3	20010913		
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EP 1235831	A2	20020904	EP 2000-971960	20001013
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EE 200200203	A	20030616	EE 2002-203	20001013
EE 4854	B1	20070615		
NZ 518156	A	20040528	NZ 2000-518156	20001013
AT 292134	T	20050415	AT 2000-971960	20001013
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EP 1559717	A2	20050803	EP 2005-6781	20001013
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L4 ANSWER 18 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

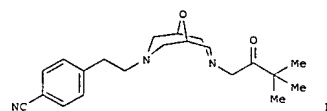
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EP 1330461	A1	20030730	EP 2001-972865	20011001
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CN 1793146	A	20060628	CN 2005-10003577	20011001
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IN 2002MN00420	A	20050318	IN 2002-MN420	20020404
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US 7164017	B2	20070116		
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ZA 2003001757	A	20040205	ZA 2003-1757	20030303
IN 2003MN00271	A	20050211	IN 2003-MN271	20030303
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US 6936712	B1	20050830	US 2003-381900	20030331
US 2004039199	A1	20040226	US 2003-398171	20030402

L4 ANSWER 18 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

US 2005171100	A1	20050804	US 2005-89325	20050325
US 2006166979	A1	20060727	US 2006-358533	20060322
US 2006166980	A1	20060727	US 2006-385861	20060322
JP 2006342182	A	20061221	JP 2006-226089	20060823
US 2007117799	A1	20070524	US 2006-640417	20061218
PRIORITY APPLN. INFO.:			SE 1999-3759	A 19991018
			PH 2000-1200002701	A 20001002
			EP 2000-971960	A3 20001013
			JP 2001-531792	A3 20001013
			WO 2000-SE1994	W 20001013
			US 2000-688251	A3 20001016
			CN 2001-816722	A3 20011001
			WO 2001-SE2129	W 20011001
			WO 2001-SE2130	W 20011001
			US 2002-317195	A3 20021212
			US 2003-381900	A3 20030331
			US 2006-385861	B1 20060322

OTHER SOURCE(S): MARPAT 134:326548

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AB R12122CR2R323R4 [R1 = (un)substituted alkyl; R2 = H, halo, alkyl, alkoxy, etc.; R3 = H or alkyl, R2R3 = O; R4 = (un)substituted Ph or pyridyl; Z1 = (alkyl-substituted) 9-oxa-3,7-diazabicyclo[3.3.1]nonane-3,7-diyl; Z2 = bond, alkylene(oxy), alkyleneimino, etc.; groups cited for Z2, alkyleneethio, etc.] were prepared as antiarrhythmic agents (no data).

Thus,

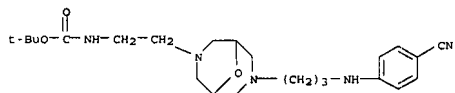
2,6-diiodomethyl-4-phenylsulfonfylmorpholine (preparation given) was cyclocondensed with PhCH2NH2 and the product converted in 4 steps to tert-Bu 9-oxa-3,7-diazabicyclo[3.3.1]nonane-3-carboxylate which was N-alkylated by ClCH2COOMe and the deprotected product N-alkylated by 4-(NC)C6H4CH2CH2OSO2Me (preparation given) to give title compound I.

IT 335619-16-4P 335619-17-5P 335619-18-6P
335619-20-0P 335620-25-2P 335620-57-0P
335620-86-5P 335620-91-2P 335620-92-1P

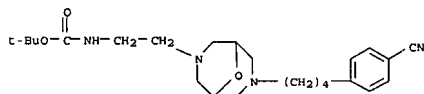
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L4 ANSWER 18 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
 335620-93-4P
 RL: BAC (Biological activity or effector, except adverse); BSU
 (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
 BIOL (Biological study); PREP (Preparation); USES (Uses)
 (prepn. of 9-oxa-3,7-diazabicyclo[3.3.1]nonanes as antiarrhythmic
 agents)
 RN 335619-16-4 CAPLUS
 CN Carbamic acid, [2-[7-[3-[(4-cyanophenyl)amino]propyl]-9-oxa-3,7-
 diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA
 INDEX NAME)

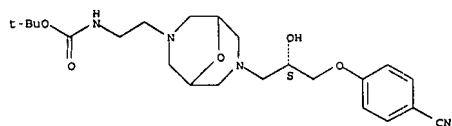


RN 335619-17-5 CAPLUS
 CN Carbamic acid, [2-[7-[4-[(4-cyanophenyl)butyl]-9-oxa-3,7-
 diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA
 INDEX NAME)

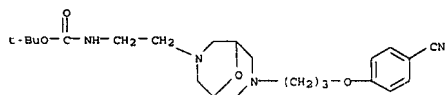


RN 335619-18-6 CAPLUS
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 NAME)

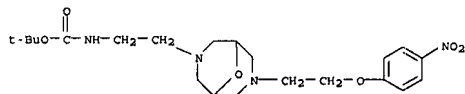
Absolute stereochemistry.



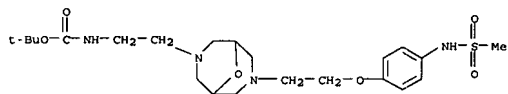
L4 ANSWER 18 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



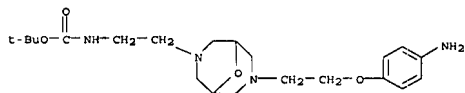
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 diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA
 INDEX NAME)



RN 335620-92-3 CAPLUS
 CN Carbamic acid,
 [2-[7-[2-[4-[(methylsulfonyl)amino]phenoxy]ethyl]-9-oxa-3,7-
 diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA
 INDEX NAME)

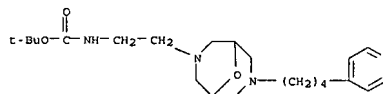


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 INDEX NAME)

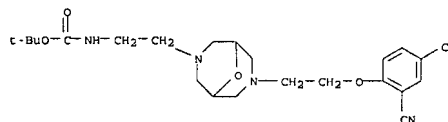


L4 ANSWER 18 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

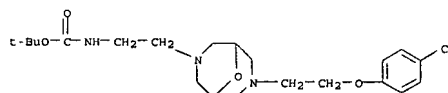
RN 335619-20-0 CAPLUS
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 diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA
 INDEX NAME)



RN 335620-25-2 CAPLUS
 CN Carbamic acid, [2-[7-[2-(2,4-dicyanophenoxy)ethyl]-9-oxa-3,7-
 diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA
 INDEX NAME)



RN 335620-57-0 CAPLUS
 CN Carbamic acid, [2-[7-[2-(4-cyanophenoxy)ethyl]-9-oxa-3,7-
 diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA
 INDEX NAME)



RN 335620-86-5 CAPLUS
 CN Carbamic acid, [2-[7-[3-(4-cyanophenoxy)propyl]-9-oxa-3,7-
 diazabicyclo[3.3.1]non-3-yl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA
 INDEX NAME)